

Appendix A: Agency Coordination

clear zone

The clear zone, a safety provision, is a strip of land parallel to the road, and maintained free of rigid or fixed hazards (trees, utility poles, fire hydrants), to enable a vehicle that accidentally leaves the road the opportunity to “recover” and return safely to the road.

swale

A swale is a slight depression or ditch parallel to the road that serves as a collector for rainwater runoff. Swales are most generally found along roads that do not have a curb and gutter system.

barrier

A barrier is a safety feature designed to protect the vehicle from a hazardous situation. Barriers are commonly constructed as guardrail, walls, or posts.

lighting

Lighting refers to both the source of light (and its intensity), and the design of the fixture that supports the light source.

signs

Road-related signs provide information for the traveler about road identification (route numbers), location, direction, distance, warnings and regulations. Other public signs provide visitor information, serve as commemorative or gateway features, or provide visitor orientation.

sidewalks

Sidewalks are durable paved surfaces that generally run parallel to the road and are dedicated to the use of pedestrian (and sometimes bicycle) traffic.

paths

Paths provide access for pedestrians and bicycles and are generally less formally defined than sidewalks. Paths may originate from an unplanned or organic use (people tend to create paths if no other accommodation is provided), or may have been designed. Paths may be unpaved or have a gravel or asphalt surface.

tree lawn

A tree lawn is the area between the curb and sidewalk usually dedicated to the planting of street trees. In some areas this may be referred to as a tree reservation or grass verge.

street trees

Street trees are trees planted parallel, and generally in a formal pattern or spacing, to the road.

utilities

Utilities may be above or below ground and include electric, cable, telephone and fiber optic lines; gas, water, irrigation, storm and sewer pipes; and transformers, service boxes and steam tunnels.

structures

Structures within the right-of-way may include bridges and aqueducts that carry other roads, railroads or water over the road. They may also include administration buildings (often associated with toll roads and bridges) or maintenance structures.

service areas

Service areas may include highway maintenance yards, rest areas or driver/auto plazas providing fuel, food and information.

waysides and overlooks

Waysides and overlooks are pull-offs adjacent to the road designed to provide access to a scenic view, interpretation or historical markers, or picnic tables. Such facilities are generally without restroom facilities.

The Setting

The parts of the setting comprise the area outside of the right-of-way. While the setting is part of the understanding of the road itself, it is highly likely that this area is beyond the control of the state Department of Transportation. The seven characteristics of the setting are (Marriott 2010: 15-17):

roadside architecture

Road-related features include structures and spaces of businesses that are integral to the use of the road. Structures may include gas stations, motor courts, drive-ins, diners or taverns. Seasonal structures may include farm markets, ice cream shops or calm shacks. Some of these structures showcase decorative or fanciful architecture designed to capture the attention of the motorist.

landscape features

Landscape features include parklands, natural areas and plantings designed in conjunction with or resulting from the creation of the road.

character

Character refers to the nature of the landscape or community through which your road passes. It may be rural, suburban or urban in nature. It may be local in character—the temple fronts of Greek Revival farm houses set well back from the road—or it may be more regional in character with businesses catering to the needs of the traveler and defined by the corporate architecture of a gas station. Character may be reinforced through common or repeating elements that create identifiable, even unique, patterns, colors, and styles along the roadside—fences, fields and woodlands, for example.

streetscape

A streetscape defines the physical setting and structures along a road in a settled area. A streetscape, whether urban, suburban or rural, is generally associated with a built-up area or concentration of development. Key characteristics of streetscapes are street trees, lights, utility lines, styles of architecture, relationship of structures to the street (adjacent to the street, setback by a wide lawn), public spaces (walks, plazas, village

greens and parks) and street furnishings (benches, lights, planters, parking meters, mailboxes).

cultural landscape

The cultural landscape defines the patterns, design and structure of a landscape influenced, altered or changed by human activity. Hallmarks of a cultural landscape may include the size and shape of fields and orchards, the characteristic layout of communities (a grid pattern, a linear alignment along a road or settlements at mountain passes or river confluences), or the nature of the road network (along land grant lines, paralleling waterways through a valley or following the dictates of a regional transportation plan). Cultural landscapes are generally not designed by a master landscape architect or planner, but may be “designed” or influenced by the traditions or goals of social, religious or ethnic groups.

viewshed

Viewshed refers to the “view” from a particular point in space. The viewshed encompasses everything that can be seen from this point. A viewshed may be very large, such as the view across a valley from a ridge road, or the view of Lake Tahoe as it stretches to the horizon. It may also be

or the limited view along a road in a densely wooded area. The viewshed of a road is generally considered the view to the left or right from the centerline of the road.

foreground, middle ground, background

Foreground, middle ground and background are landscape terms that assist in defining the viewshed. Foreground refers to that part of the setting that is immediately adjacent to the road and clearly discernable. Middle ground refers to the near distance where larger features such as trees, roads or buildings may be recognized as individual elements—but not clearly. Background refers to the far distance where only basic forms are discernable and the intensity of the colors in the landscape begins to fade to gray. Naturally, not all viewsheds will possess all three elements.

Materials and Construction

Other elements of the road are the materials and construction techniques.(Marriott 2010: 17):

materials

Construction materials for historic roads may include concrete, brick, stone, iron, steel, aluminum, glass and wood. Landscape materials, materials consciously designed and installed as a part of the road environment, may include trees, shrubs, groundcovers and flowers. Materials may be highly visible, such the iron or steel on a bridge, a row of trees in full bloom, or invisible, such the gravel sub-base over which an asphalt street is laid.

construction

Construction techniques for historic roads will address dimensions (thickness, width, height and depth), assembly (mortar, steel reinforcing, nuts and bolts, rolling, compacting and anchoring) and applications (painting, galvanizing and liquid treatments such as tar and asphalt). Like any historic property, construction techniques may be

economical and efficient or the result of an experienced craftsman employed due to a recognized skill or talent.

Length

Length of a cut-off road segment is integral to its significance. The length of a cut-off segment of a road is crucial to interpreting that segment's significance. In Iowa (Ingalls 2009), Arizona (Keane et al. 2004) and New Jersey (KSK Architects et al. 2011), length of the road segment has been determined to be one of the key characteristics in conveying setting and feeling. While no one agrees on the minimum length that must be present, many agree on one-fifth (about 1000 feet) of a mile as being a starting point. In Iowa, there is differentiation between straight and curved segments, it being thought that curved segments convey more feeling and setting given the faster change of scenery and the extra motion of the automobile going around the curve. For this reason, in Nevada, a starting point for the consideration of setting and feeling from the segment length will start at one-mile for the vast amount of straight road segments and one-fifth of a mile for curved segments.

State Route 445 – the Pyramid Highway

The documented history of the Pyramid Highway (SR 445) starts in 1935. Prior to that, the 1893 US Geological Survey Map shows that there is no road in the area. At that time, there were two ways to travel to Pyramid Lake, one route through Sun Valley and the other along the eastern edge of the Spanish Springs.

Sometime between 1893 and 1935 a road was developed between Sparks and Pyramid Lake that traveled through Spanish Springs Valley. This was most likely a cultural road, with a dirt travelway and little or no engineered features. In 1934-1935 the Nevada Department of Highways developed plans to improve this road, now known as the Pyramid Highway, or SR 445.

A 1935 plan set shows the pre-1934 alignment of the Pyramid Highway. The 1935 plans called for straightening tight curves and switchbacks. The work of improving a 6.283 mile section of the Pyramid Highway containing SHPO Resource #S821 was done with day-labor and completed in August of 1934. The use of day-labor meant that there are no "as-built" plans in the NDOT archives. However, a 22.496 mile section of the Pyramid Highway, just north of S821 (designated on the plan set as "NRS#123B") was built with designed plans in 1935. Plan set cross sections of segment NRS#123B shows that the road was built with a 26' wide travelway made of select borrow material (dirt) that allows for two 10' wide lanes and two 3' wide shoulders. The slopes bordering the road had a 6:1 ratio, taking 21' with a 2:1 back slope back to ground level. The road surface originally would have been "select material" or compacted dirt and gravel. The road was probably "oiled" soon after construction as the 1930s Nevada Highway Department biennial reports refers to the Pyramid Highway as having an oiled surface. To make an oiled road, oil was sprayed onto the surface of a dirt or graveled road. Heat from the sun and compaction from vehicles turned the oil into a thin pavement-like layer that helped protect the road from water erosion. The 6.283 section of the highway containing S821 and section NRS#123B would have been built to similar widths with similar materials.

In 1959, the Pyramid Highway alignment was straightened again and the segments in questions (S821) were cut-off from the functioning roadway. In the 1959 plan set, the existing Pyramid Highway was described as the same 26' wide travelway that is described above. However, the road surface had changed from dirt, or an oiled surface, to a 1" thick bituminous wearing

Attachment A: Transportation Historical Context

surface reinforced with cotton membrane, and a 2 ½" thick roadmix surface. (A "roadmix" surface is simply a mixture of aggregate and bituminous material made on site, as opposed to a "plantmix" which is aggregate and bituminous material mixed at a plant and delivered to a construction site.) The date of the road surface change is uncertain.

The improved 1959 Pyramid Highway became two 12' wide lanes with two 4' wide shoulders and a 6:1 slope along the roadside. The surface was 1/2" thick open graded plantmix surface on a 24' wide travelway. ("Open graded" mix uses larger aggregate than a "dense graded" mix. The benefit of an open grade mix is that the travel surface has more friction, making it safer to travel at higher speeds. However, because of the larger aggregate, open graded mix usually has large air voids in the mixture and is more water permeable.)

Today, the Pyramid Highway follows the 1959 alignment. Further alterations to the road, such as the addition of turn lanes, lane widening, barrier rails, and signage have been made to the road in the intervening years.

References

Ingalls, Marlin R.

2009 *Iowa's Historic Automobile Roads: A National Register Study of Pre-1948 Arterial Highways*. Iowa Department of Transportation, Ames, Iowa.

Keane, Melissa, J. Simon Bruder and Kenneth M. Euge

2004 *Good Roads Everywhere: A History of Road Building in Arizona*. Arizona Department of Transportation, Phoenix.

Marriott, Paul Daniel

2010 *The Preservation Office Guide to Historic Roads: Clarifying Preservation Goals for State Historic Preservation Offices, Establishing Preservation Expectations for State Transportation Departments*. Historic Preservation Office, Washington D.C.

Wallace, Laurel T.

2004 *Historic Highways in the NMDOT System*. New Mexico Department of Transportation, Sante Fe, New Mexico.

Attachment D: Character Defining Features of the 1935 Pyramid Highway

The character defining traits of the 1934-1935 Pyramid Highway can be broken down into three categories: the characteristics of the road itself; the elements found in the right-of-way immediately adjacent to the road; and the character of the setting, which includes roadside architecture and the viewshed.

The Pyramid Highway was constructed from 1934 to 1936. The segments of the old Pyramid Highway in the Pyramid-395 Connector Project's Area of Potential Effect (S821) was built by day laborers without a construction contract, meaning that construction plans and other records of the roads construction were not kept in NDOT archives and are unlikely to exist. The physical appearance of this section of road is based on Nevada Department of Highways Biennial reports, and on construction plans for the adjacent section of the Pyramid Highway, which was constructed through a contractor. The assumption is that the entire Pyramid Highway road was built to the same specifications.

The Road

Prior to 1934, the road from Sparks to Pyramid Lake, through Spanish Springs Valley, was a dirt road with minimal improvements. The 1935 road construction plan set shows that the old road approximately followed the alignment of the new 1935 road, but the new 1935 road eliminated several curves and switchbacks in the old road and generally straightened the road. The road section of old Pyramid Highway constructed in 1934, including S821, had two travel lanes, each measuring 10 feet across. The travel lanes were constructed of three layers. The deepest layer was a 9 inch bed of granite sand. This was covered with 6 inches of gravel, and finally topped with 4 inches of smaller gravel to form the travelway surface. Soon after completion, the graveled surface was coated with oil to make it more waterproof and hold together better. The 1935 plan set instructs the builder that "headwalls shall be placed on both ends of all pipe culverts, except as noted." Stone headwalls were found on one end of a pipe culvert in Segment B.

A 3 foot dirt shoulder bordered the travel lanes. Outside of the shoulder was a runoff swale that varied in width but generally was about 21' across with a 6:1 slope. The result was a road that was raised above the natural surface of the ground by a few feet. The roadway was leveled. Gullies were filled in and peaks were graded down but not to the extent that is seen on modern roads. The 1930s Pyramid Highway still followed the natural contours of the earth closely.

The Right-of-Way

The Right-of Way includes the property or easement along the road owned by the highway department. In Nevada, it is generally 200 feet from centerline, creating a 400 foot wide swath. Historic elements that might be seen in the right-of-way are directional signage, wood mile post markers, streetlights, traffic signals, and concrete or wood right-of-way markers. Probably none of these elements were along the segment of old Pyramid Highway in the APE. The most likely elements to be found are wood mile post markers, and the concrete "N Post" marker that was used to mark the edge of the right of way at the beginning and end of arcs in the road. Concrete N Posts were used from 1919 to 1948 and measured 6" square with the letter "N" for "Nevada" embossed at the top. N Posts may have been placed at the curve in the old Pyramid Highway alignment located in Wedekind Park. Today, there is no evidence of N Post markers, or of mile markers.

Attachment B: Character Defining Features of the 1935 Pyramid Highway

The Setting

The current setting of the old Pyramid Highway would be unrecognizable to the 1935 automobilist. In the 1930s the area was characterized by undeveloped desert views with occasional ranching homesteads and agricultural fields that bordered streams. It would have been a long treeless journey through the high desert.

Today the drive down modern day Pyramid Highway is bordered by housing subdivisions and commercial developments with only the occasional stretch of natural landscape. The segment of the old Pyramid Highway within the APE has been diminished in particular. The construction of the Sparks Crossing Shopping Mall to the east of Segments A and B has replaced rocky hills of sagebrush and rabbitbrush with Bed Bath & Beyond, Dollar Tree, Famous Footwear, Old Navy and a sea of parking lots.



Gravel being applied to a prepared roadbed, location unknown. Similar equipment would have been used to gravel the Pyramid Highway in the mid 1930s. (NDOT Photo Archives).

Attachment B: Character Defining Features of the 1935 Pyramid Highway



The runoff swale being constructed along an unidentified Nevada road in the 1930s. Similar techniques would have been used to build the Pyramid Highway in the mid 1930s. (NDOT Photo Archives).



Oil being applied to a road in the 1920s, unknown location. Similar equipment would have been used to oil the Pyramid Highway. (NDOT Photo Archives).

Attachment B: Character Defining Features of the 1935 Pyramid Highway

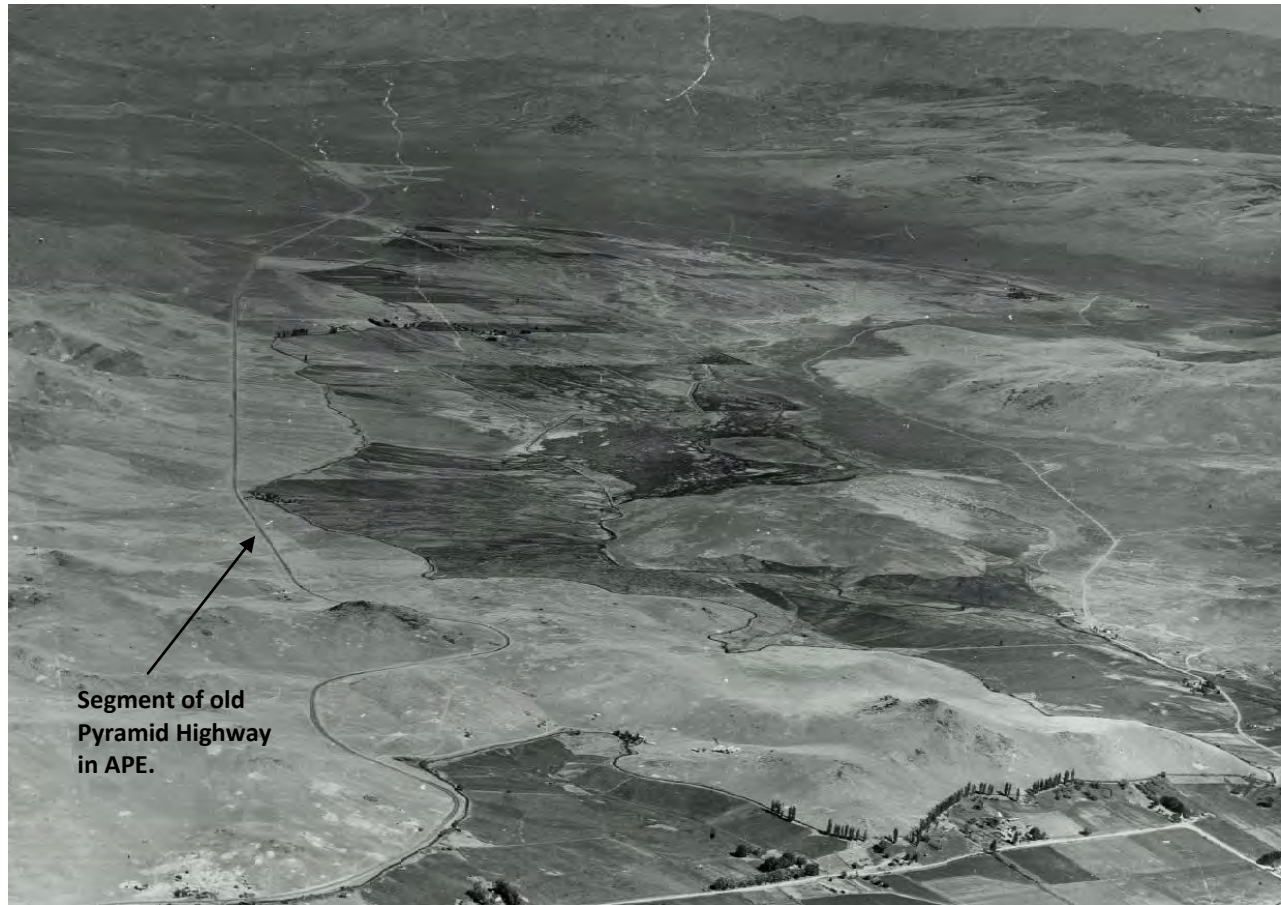


Early oiled road in Nevada. Unknown location and date. This photo shows what the surface of an oiled road looked like. The Pyramid Highway was wider with shoulders and a drainage swale (NDOT Photo Archives).



Between 1935 and 1959, the surface of the Pyramid Highway had been improved with a 1" thick bituminous pavement reinforced with "cotton membrane." This photo from 1937 shows workers applying a cotton membrane, basically a bolt of cotton fabric, to a newly constructed road. (NDOT archives).

Attachment B: Character Defining Features of the 1935 Pyramid Highway

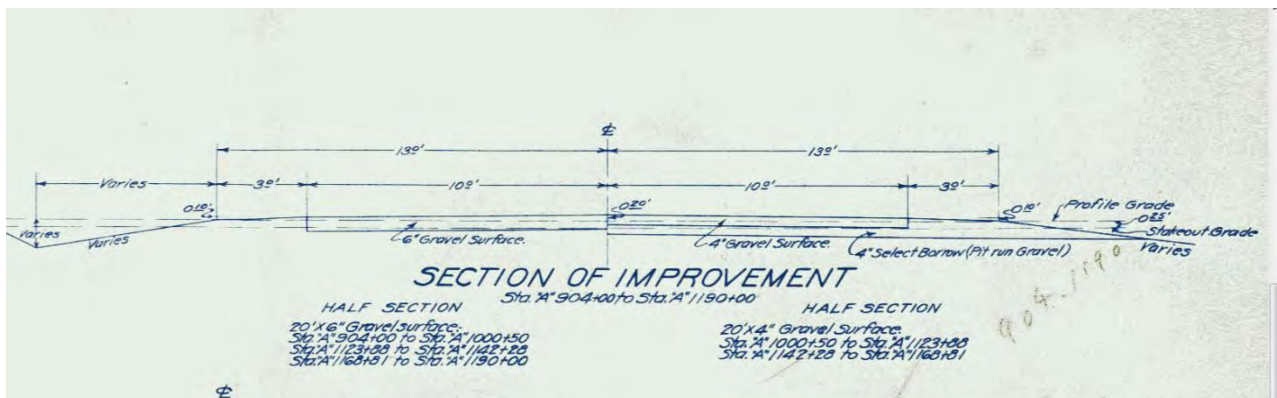


1946 aerial photograph of the Pyramid Highway, looking north. At this time the road was two lanes, paved with asphalt. It featured the newly implemented dashed centerline (as opposed to a solid centerline). Painted shoulder lines were not used until 1956.

Attachment B: Character Defining Features of the 1935 Pyramid Highway



Detail of 1946 aerial photograph showing dashed centerline and the neighboring agricultural and desert landscape.



Cross-section of Pyramid Highway from Contract 412, dated March 5, 1935 (NDOT Archive).

Attachment B: Character Defining Features of the 1935 Pyramid Highway

Table 1. Character Defining Traits

	Historic Condition	Current Condition
The Road: Pavement	1935: graveled road Shortly after 1935: oiled road Between 1935 and 1959: bituminous paved surface	Majority of road surface has deteriorated. Small sections of asphalt remain.
The Road: Alignment	Vertical and horizontal alignment of the road follows the natural contours of the ground closely; there was only minimal excavation and fill used to make the road level.	Alignment remains similar to historic conditions.
The Road: Subsurface	Two 10-foot travel lanes on a bed of compacted gravel and sand.	The majority of the road subsurface has deteriorated. The hard-packed road surface measures about 10 wide.
The Road: Shoulder	3' wide dirt shoulders	The original shoulders have deteriorated and no longer exist.
The Road: Structures	Pipe culverts were to be faced with stone.	A stone faced culvert exists as part of Segment B. One side of the culvert has been destroyed through erosion. The other side retains good integrity. No other structures are evident.
The Road: Length	The old Pyramid Highway stretched approximately 32 miles from Sparks to the southwest side of Pyramid Lake	Segment A is 1,410 feet long and Segment B is 790 feet long. Both segments are cutoff by a steep berm and a crossing street. The two segments of Old Pyramid Highway combined represent .01 percent of the total length of the historic Pyramid Highway.
The Right-of-way: Lighting	Apart from automobile headlights, there was no lighting on the road.	Segments A and B are light by the ambient lighting from the modern Pyramid Highway and the neighboring shopping mall.
The Right-of-way: Signs	Concrete "N Post" ROW markers located at curves in the road. Wood mile post markers located every mile. Historically, there were probably no signs or markers along the segment of Pyramid highway in the APE.	No 1930s related markers or signs in the right of way.
Setting: Roadside architecture	The area traveled between Sparks and Pyramid Lake was devoid of roadside architecture. A historic photograph from 1946 shows a few ranch buildings that are at a distance to the road.	Segments A and B are boarded by the Sparks Crossing Shopping Development on the east, and the modern alignment of the Pyramid Highway on the west.
Setting: Character	Undeveloped, rural area.	Developed urban area with modern residential subdivisions and commercial developments.
Setting: Viewshed	Long views of undeveloped desert and occasional agricultural fields.	Views to the south of the Sparks suburbs.

Attachment B: Character Defining Features of the 1935 Pyramid Highway

Eligibility Requirements

If a road possesses integrity, it may be eligible under the following criteria:

- A road may be eligible under criterion A if it is associated with specific events, or a broad pattern of events, that are important to history. An example of this would be a road that connects two commercial centers and resulted in significant economic development as a result of the route, or a road that was built as part of a national program of defense leading up to World War II.
- A road may be eligible under criterion B if it is associated with an individual, or individuals, important to history. An example of a road eligible under criterion B would be a road that was designed by a significant road engineer or landscape architect and the road illustrates an important achievement in the individual's career.
- A road may be eligible under criterion C if it represents a distinctive type, period or method of construction, or was the work of a master. An example of a road eligible under criterion C would be an intact section of road that was constructed as a model for other roads such as the "Ideal Section" of road built as part of the Lincoln Highway, or an aesthetic road designed by a master landscape architect as part of a larger landscape.
- A road may be eligible under D if further intensive study of the materials or method of construction was likely to reveal information that could contribute important information to our understanding of history.

The architectural aspects of integrity that must be present for a road to be considered eligible are design and location. The original alignment and good to excellent integrity of setting are essential elements for a road to convey its historic associations.

Integrity of Segments A and B

Segments A and B of the old Pyramid Highway retain integrity of location. They have poor integrity of design, materials, workmanship, setting, association, and feeling.

Design: Nevada FHWA recommends that at least one mile of road is necessary to convey the original design of a historic road. The essence of a road is that it travels *through* a landscape. Segments of road shorter than one mile lack the essential quality of a road, especially in areas of relatively level terrain such as the Old Pyramid Highway. Segment A is .27 miles long and Segment B is .15 miles long. Even added together they do not have the length needed to suggest the sense of distance the road once had. The 1935 travelway was 20' wide (two 10' wide lanes) with 3' wide shoulders. Today, the segments of road have eroded to about 10' wide total. There is no evidence of the shoulder, or the slope along the side of the road.

Materials: The condition of a historic resource may be poor without affecting the integrity. However, in the case of the Old Pyramid Highway, the condition is so deteriorated that character defining features of the highway, such the width of the road, shoulders, subsurface, and surface material are missing. The surface of the road evolved from dirt, to an oiled gravel surface in the 1930s, to a paved asphalt surface in 1959. None of these materials phases of the road are represented

Location: The two segments of road (.42 miles) retain integrity of location.

Workmanship: Extreme deterioration of the road has diminished the levels of integrity of workmanship. A small culvert, faced with granite ashlar is the only remaining element of the road that displays historic workmanship. The rest of the road has poor integrity of workmanship.

Attachment B: Character Defining Features of the 1935 Pyramid Highway

Setting: The Historic Resource Inventory Form documents that the road segments have had “significant loss of their original setting and feeling due to nearby modern development.” Commercial development and the nearby modern Pyramid Highway have significantly changed the historically rural setting of the road.

Feeling: The changes to the setting, coupled with the poor integrity of the resource leave the road with no expression of aesthetic or historic sense of a particular time period.

Justification

Segments A and B of the old Pyramid Highway (S821) are not eligible under **criterion A**. While the road between Sparks and Pyramid Lake was important to a small population of locals, the travelway cannot be argued to have significantly affected regional economic or social change. Assessment of eligibility of historic roads has been addressed by the Colorado Department of Transportation in 2002 with the production of a context and history prepared by Associated Cultural Resource Experts (ACRE 2002). It was concluded that “...no single highway is likely to be considered historically significant simply because it exists” (ACRE 2002:10:1). The significance of a roadway is determined by the human activities “considered to be important in our past that were facilitated or made possible by the highway. ... in general, highways are historically important because of their role in affecting economic and social changes to our society” (ACRE 2002:10:1).

Segments A and B are not eligible under **criterion B** because scholarly research did not indicate that the Pyramid Highway had any association with persons important to our history.

Segments A and B are not eligible under **criterion C**. The road is not the work of a master, nor does it possess high artistic values. In their current state of deterioration, the short segments do not embody the distinctive characteristics of a 1930s highway.

Segments A and B are not eligible under **criterion D** because they are unlikely to yield information important in prehistory or history. The construction method of the road and the materials used are well documented and further study of the road segments is unlikely to reveal new information about early 20th century roads or history. Due to the lack of associated features it is unlikely that further investigation of this site will yield information important to regional questions. Often, the history of a road can best be obtained through archival and documentary sources. The 1935 and 1959 plan sets for the Pyramid Highway are available at the NDOT archives. According to Keane and Bruder (2004:101) “Only rarely is archaeological study of a roadbed alone likely to yield valuable historical information. Similarly, unless road-related features such as culverts, bridges, and retaining walls are not documented in archival records, archaeological recordation is unlikely to provide important information”.

References

ACRE
2002 Final. Highways to the Sky: A Context and History of Colorado's Highway System. Submitted to Colorado Dept. of Transportation, Denver. Associated Cultural Resource Experts (ACRE).

Keane, Melissa and J. Simon Bruder
2003 Good Roads Everywhere: A History of Road Building in Arizona. Prepared for Arizona Dept. of Transportation Environmental Planning Group

SHEET NO 1 - TITLE PAGE
 2 - TYPICAL SECTIONS
 3-22 - RAY AND PROFILE
 23-34 - STREET NAME LIST
 35 - STANDARD REINFORCED BOX CURBENTS
 36 - STANDARD PIPE CURBENTS
 37 - LAMINATED CURBENTS
 38 - STANDARD DETAILS
 39 - BRIDGE DETAILS
 40-407 - CROSS SECTIONS

O. E. FILE this set of

the set of

DEPARTMENT OF HIGHWAYS

PLAN AND PROFILE OF PROPOSED

FEDERAL AID PROJECT

PROJECT NRS: #123

Please do not take this set of plans from the building, and when through with it, return to Mr. Stephen Pearson.

WASHOE COUNTY
4 MILES N.E. OF KENO TO PYRAMID LAKE

SCALES | PLAN, 1 IN. = 100 FT.
PROFILE, HOR. 1 IN. = 100 FT., VERT. 1 IN. = 10 FT.

BEGINNING OF PROJECT
STA "A" 0-92.65 P.C.

END OF PROJECT

STA. "A" 1190+00.00 P.O.C.

N.R.S. #125 B (1935)
26' Roadway ~ 26'5" of Material
and 20' of Gravel or Stone Surface
Length 116, 723.03 ~ 22.496 mi.
To be Contracted.

NR 5 #129 A (1934)
EC Boothby
2656162171724.43 = 6.223 m.
Length 33.724.43 = 6.223 m.
Depth 12.461.724.43 = 6.223 m.
Cohort 12.461.724.43 = 6.223 m.

Approved Mar 5 . 1935

H. D. Knudsen, State Highway Engineer

Richard Hirmann Sr.

**Board
of Directors**

Graymashburn

**PLEASE RETURN TO
ENGINEERING FILES**

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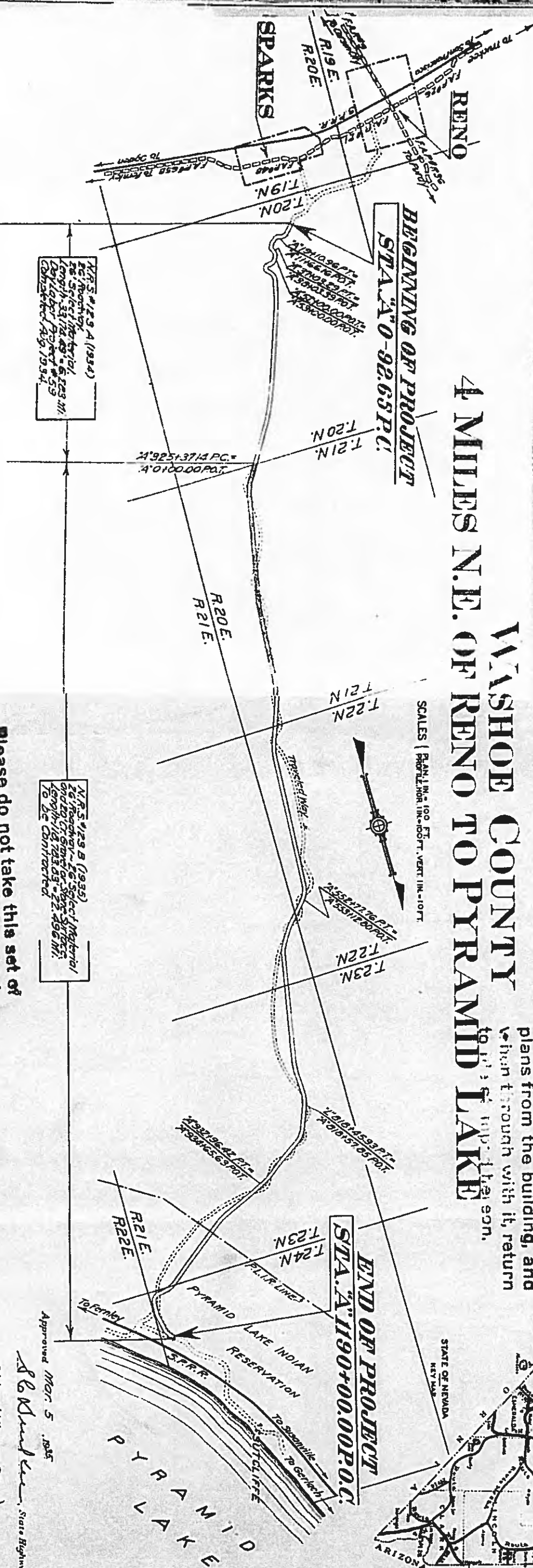
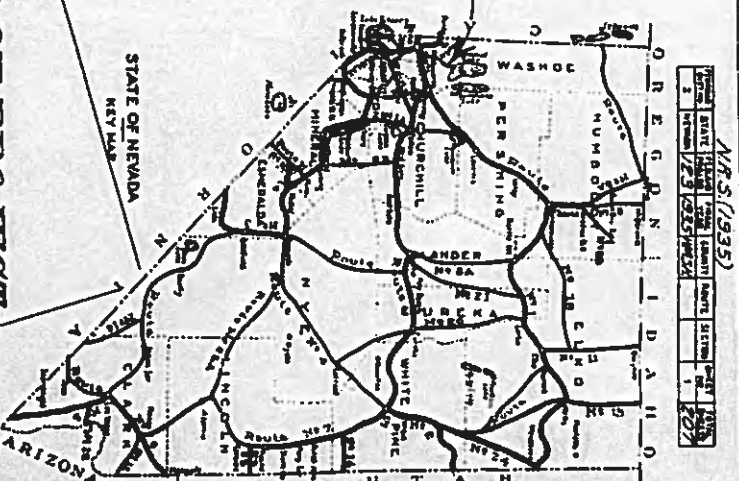
RECOMMENDED FOR APPROVAL:

RECOMMENDED FOR APPROVAL

CRISP PRODUCTION SYSTEMS OF PEARL RIVER

APPENDIX:

DIRECTOR **SHAW** **OF** **ENGLAND** **ROAD**



INDEX OF SHEETS

SHEET	No.	DESCRIPTION
1	TITLE SHEET	
2	TYPICAL SECTIONS	
3	2x2x20 SUMMARIES AND ESTIMATE OF QUANTITIES	
4	3-7-PLAN AND PROFILE	
5	8-LOCATION SKETCH-DETOURS AND MATERIALS	
6	9-10-SPECIAL DETAILS	
7	STANDARD SUPERELEVATION (SHEET No. 1)	
8	STANDARD APPROACH ROADS	
9	STANDARD DETAILS	
10	STANDARD CHAP CULVERT HEADWALLS (SHEET No. 1)	
11	STANDARD CHAP CULVERT HEADWALLS	
12	STANDARD METHODS OF EXTENDING CULVERTS	
13	STANDARD FENCE DETAILS (SHEETS No. 1 and 2)	
14	STANDARD STEEL GUARD RAIL	
15	STANDARD RCB CULVERTS (SHEETS No. 1, 3, 4 and 5)	
16	STANDARD FIELD LABORATORY	
17	STRUCTURE LIST	

STATE OF NEVADA

DEPARTMENT OF HIGHWAYS

PLAN AND PROFILE OF PROPOSED
STATE HIGHWAY
WASHOE COUNTY

JUNC. U.S. 40 IN SPARKS (VIA PYRAMID WAY)
TO JUNC. FAS 703

PROJECT US-S704(2)

FED. ROAD DIV. NO.	STATE	PROJECT NO.	COUNTY	SECTION ROAD	SHEET NO.	TOTAL SHEETS
7	NEVADA	US-704(2)	WASHOE	WA-12	32	1

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END FAS ROUTE 704

1063

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plans from the building, and
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BASINEMENT FILE

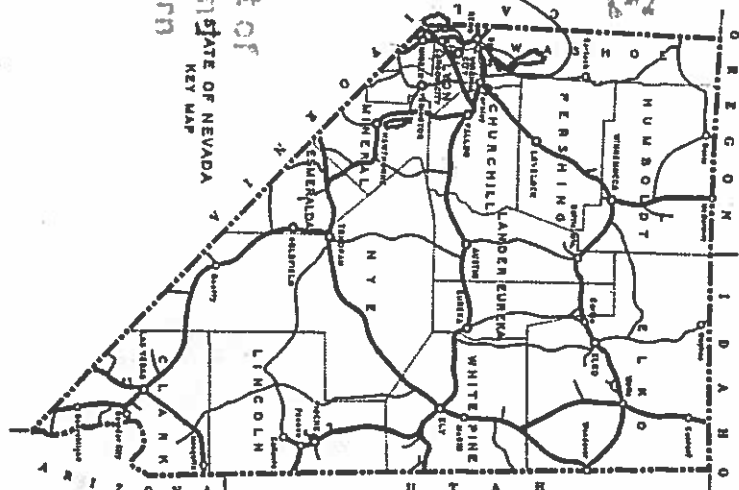
US-S704(2)
42' Roadbed ~ 42' Planmix Surface (including 4' shoulder Lt and 14' shoulder and transition Rt ~ Length 0.112 mile.
32' to 72' Roadbed (Portions widened for future widening as slope construction) ~ 32' Planmix Surface (including 4' shoulder-s) ~ Length 0.970 mile.
Length of Project 1.082 miles
Length of Route as revised 1.351 miles
To be Constructed No. 1063 Accepted July 1967

0+103+34.00 P.O.T.
END PROJECT US-S704(2)
Contract No. DL-59

0+103+38.00 P.O.T.
END FAS ROUTE 704

APPROVED FEBRUARY 2, 1959:
EDWARD L. PINE C.E.
GRANT SAWYER
CHAIRMAN
ROGER D. FOLEY
KEITH L. LEE
BOARD
OF DIRECTORS

REDUCED PLANS
SCALES REDUCED ACCORDINGLY



GENERAL NOTES

Sheet No. 1-Alignment and grades are subject to adjustment.

- ## SECTION AS CONSTRUCTED

* "01"209+57.86 P.O.T. to "X"285+11.35 P.O.T. is without Cotton Membrane
* "01"169+79.00 to "X"285+11.35 P.O.T. is without Selected Borrow

SECTION AS CONSTRUCTED
 03°46' + 20.00 P.O.T. to 0°103' + 34.00 P.O.T. US-S 704(2) \

①NOTE
Dashed section added by subdivision 1957.
03*46+20.00 P.O.T. to 03*49+80.00 P.O.T. R.F.



CONSTRUCTION TYPE CODE 4251

Resurfacing a portion of SR 33 north of the Juncot of Weckind Rd. and SR 33 (77' 0" 175+60 to 0+168+00. Under LA # 11110 dated Aug. 4, 1966.

Use: 6:1 ~ 1.5' ditch ~ 4:1 BS
except as noted on layouts



HALF SECTION OF IMPROVEMENT

③ 04 68+00.00 P.O.T. to 04 77+40.00 P.O.T. L&I 0.5' US-S704(2) WA-12
 04 73+00.00 P.O.T. to 04 74+00.00 P.O.T. E&T-Transition 0.0 to 8.5'-US-S704(2) WA-12
 04 74+00.00 P.O.T. to 04 77+00.00 P.O.T. E&T 8.5' US-S704(2) WA-12
 04 77+00.00 P.O.T. to 04 78+00.00 P.O.T. E&T-Transition 8.5' to 00'-US-S704(2) WA-12
 CONSTRUCTION CODE 4251

04+13+00.00 P.O.T. to 04+74+00.00 P.O.T. Δt - Transition 0.0 to 8.5-US-5704(2) WA-12
04+74+00.00 P.O.T. to 04+77+00.00 P.O.T. Δt 8.5 US-5704(2) WA-12
04+77+00.00 P.O.T. to 04+78+00.00 P.O.T. Δt - Transition 8.5 to 00.0-US-5704(2) WA-12
CONSTRUCTION TYPE CODE 4.251

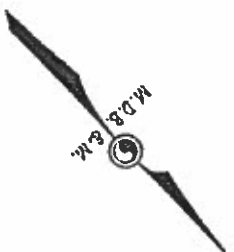
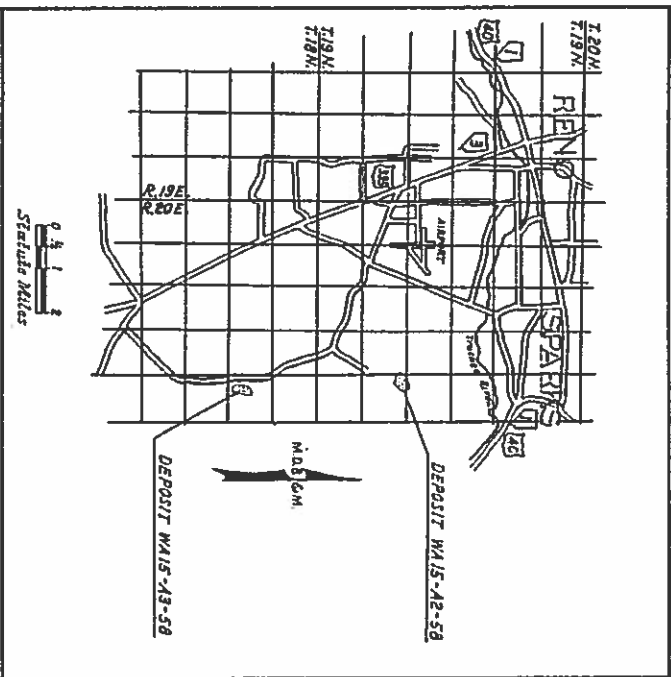
DAYLIGHT SECTION

*03" 49+80.00 F.O.T. to 03" 52+80.00 F.O.T. Rt. ~ US-5704(2) WA-12

NO.1 HALF SECTION OF IMPROVEMENT

03.52+10.38 P.O.I. to 04.67+00.00 P.O.I. & 20.0 - US-5704(2) WA-12
04.67+00.00 P.O.I. to 04.68+00.00 P.O.I. & - Transition 20.0 to 00.0 - US-5704(2) WA-12
03.53+00.00 P.O.I. to 04.53+75.00 P.O.I. & - Transition 0.0 to 20.0 - US-5704(2) WA-12
03.53+75.00 P.O.I. to 04.67+00.00 P.O.I. & 20.0 - US-5704(2) WA-12
04.67+00.00 P.O.I. to 04.68+00.00 P.O.I. & Transition 20.0 to No.2 Half Section of Improvement-US-5704(2) WA-12
CONSTRAINT TYPE CODE 4251

04 67 00 00 PART 14 Transition 20.0 to No.2 Half Section of Improvement-US-3704(2) WA-12
CONSTRUCTION TYPE CODE 4251



PROJECT NO.	STATE	COUNTY	SECTION	SHEET NO.	TOTAL SHEETS
US-7034(4) WA-11	NEVADA	CLATSOP	12	32	8
US-7034(4) WA-12	NEVADA	CLATSOP	13	33	13

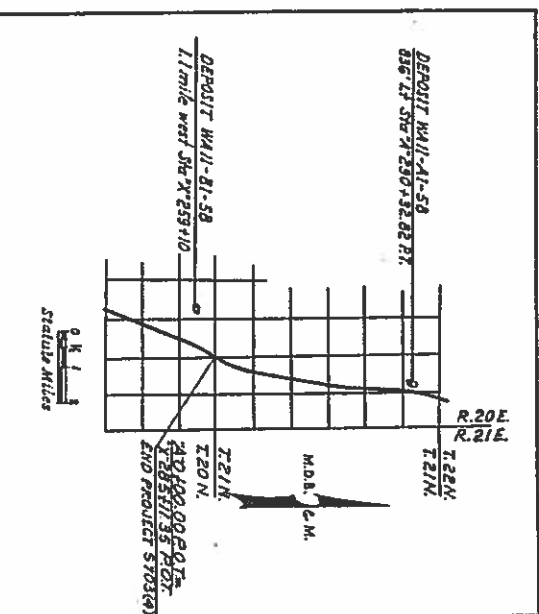
BEGIN PROJECT S703(4)WA-11
 "A" 21+20.30 P.O.T.=
 "O" 0+00.00 P.R.C.

BEGIN PROJECT US-S704(2)WA-12
 "O" 46+20.00 P.O.T.

END PROJECT US-S704(2)WA-12
 "O" 103+34.00 P.O.T.

END PROJECT S703(4) WA-11
 "X" 285+11.35 P.O.T.=
 "A" 0+00.00 P.O.T.

SIGNS
 For minimum requirements and details
 of signs, see Special Provisions.



STATE OF NEVADA
 DEPARTMENT OF HIGHWAYS
 LOCATION SKETCH
 DETOURS & MATERIALS

500-21
500-28

80+80 ~ Remove 2' x 3-4' CMP
81+00 ~ New 5'10" x 7'8" Structural Plate Cattle
Pass. Slope, 1/4 plate, 1/4" of 2" x 13" x
slope. (Pave Invert with 2" of 2" x 13" x
surface with seal coat 4" wide.

73+50 to 82+50 - 8/1000 Special Detour Lt.
(No direct payment).
N.O. 20'03 E.

"0" line not staked in field - Adopted

LUCKY STRIKE No.2

$\Delta = 13^{\circ}10'.54''$
 $R = 7500'$
 $T = 866.56'$
 $L = 1725.48'$
 $Super = 0.025'$
 $Ease = 144.16'$
 $H.S.D. = 1250'$

70+00 ~ Construct type 2A approach Rt. (b connection to present TW. No direct payment)

JOE CAPURRO AND FLORA C. CAPURRO

73+40 to 80+80 ~ Construct special approach Rt.

FLORIDA C. CAPURRO

Section of Special Approach Emb.

4' Type 2 Gravel Base

12:1

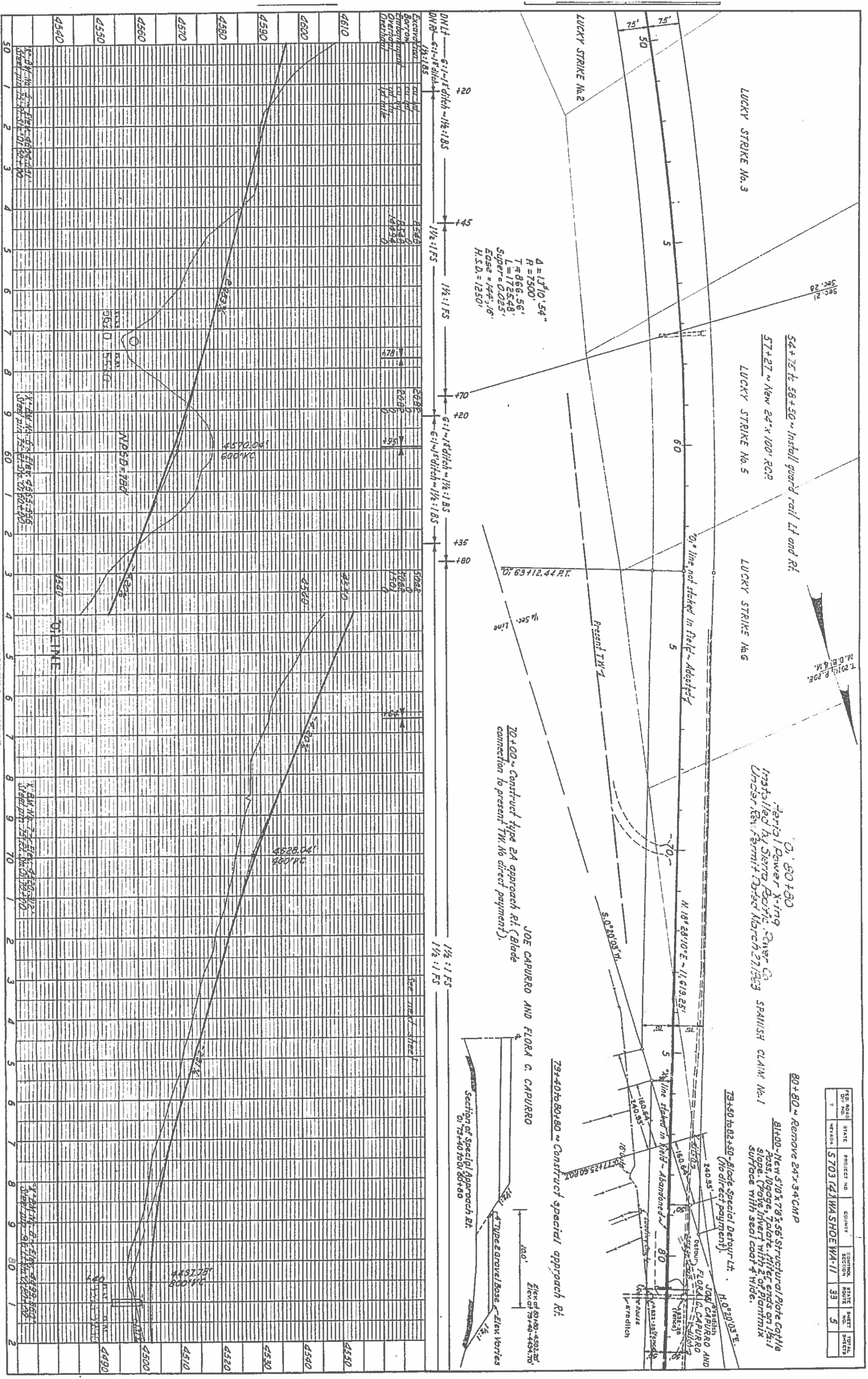
100'

4:1 Type 2 Gravel Base

12:1

Elev of 50' ± 0.50'

Elev of 45' ± 0.70'



LEO M. DROZDOFF, P.E.
Director
Department of Conservation and
Natural Resources

RONALD M. JAMES
State Historic Preservation Officer

BRIAN SANDOVAL
Governor

STATE OF NEVADA



Address Reply to:
901 S. Stewart Street, Suite 5004
Carson City, NV 89701-5248
Phone: (775) 684-3448
Fax: (775) 684-3442

www.nvshpo.org

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
STATE HISTORIC PRESERVATION OFFICE

April 3, 2013

Abdelmoez Abdalla, Environmental Program Manager
US Department of Transportation
Federal Highway Administration
705 North Plaza Street, Suite 220
Carson City, Nevada 89701

Re: Additional Information regarding Old Pyramid Highway (S821)
Pyramid-US 395 Connector Project, Washoe County, NV
EA Number: 73390 & 73391
NDOT Number: WA11-009
FHWA Number: DE-0191(065) & DE-019(067)
SHPO Undertaking Number: 2010-0884, Report Number 18192

Dear Mr. Abdalla,

Thank you for the additional information regarding the eligibility of the above referenced resource. The information was submitted in correspondence dated March 7, 2013 (received March 8th.) The Nevada State Historic Preservation Office (SHPO) has reviewed the information.

Determinations of Eligibility

Based on the Architectural Inventory (revised December 2012) along with the Appendices to the 3.7.13 Letter, the SHPO concurs with FHWA that the following resource is 'not eligible' to the National Register of Historic Places (NRHP):

#	Resource	SHPO Resource Number	Eligibility
1	Old Pyramid Highway	S821	Not Eligible

Please note eligibility determinations for the remaining resources within the APE were provided in correspondence from SHPO dated August 31, 2011. For reference, a copy of that letter is attached.

The SHPO awaits additional correspondence as the Pyramid Highway-US 395 Connection Project progresses. For questions regarding this correspondence, please contact Sara Fogelquist, Architectural Historian, at 775-684-3427 or sfogelquist@shpo.nv.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Rebecca L. Palmer', with a large, stylized loop at the end.

Rebecca L. Palmer
Acting State Historic Preservation Officer

cc: C. Cliff Creger, NDOT



LEO M. DROZDOFF, P.E.
Director
Department of Conservation and
Natural Resources

RONALD M. JAMES
State Historic Preservation Officer

BRIAN SANDOVAL
Governor

STATE OF NEVADA



Address Reply to:
901 S. Stewart Street, Suite 5004
Carson City, NV 89701-5248
Phone: (775) 684-3448
Fax: (775) 684-3442

www.nvshpo.org

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
STATE HISTORIC PRESERVATION OFFICE

August 31, 2012

Abdelmoez Abdalla, Environmental Program Manager
US Department of Transportation
Federal Highway Administration
705 North Plaza Street, Suite 220
Carson City, Nevada 89701

Re: **Additional Information for**
Determinations of Eligibility for Pyramid Highway-US 395 Connection Project
*Architectural Inventory: Pyramid Highway/US 395 Connection Project, Sparks Washoe
County, Nevada*
EA: 73390 & 73391
FHWA: DE-0191(065) & DE-0191(067)
SHPO Undertaking Number: 2010-0884
SHPO Report Number: 8041

Dear Mr. Abdalla,

Thank you for the additional information. The Nevada State Historic Preservation Office (SHPO) has reviewed the subject undertaking for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended. Based on the information submitted in correspondence from FHWA dated and received August 3, 2012, the project consists of converting Pyramid Highway from an existing arterial to a freeway and constructing a new freeway from Pyramid Highway to US 395. At this time, the SHPO has been asked to provide comments regarding eligibility only.

The additional information for this project includes a revised historic context and additional documentation in the form of a Historic Resource Inventory Form (HRIF) for the Orr Ditch. This information addresses SHPO's letter dated March 26, 2012. Thank you.

The revised historic context supports resources evaluated under National Register Criterion A, B, and C. Criteria D was not addressed. *This survey did not include archaeological survey, and, thus,

no discussion of Criterion D considerations has been developed. The archaeological resources associated with the proposed undertaking will be described and National Register evaluation recommendations made in a separate report' (page 32). Criterion D, while most often applied to archaeological districts and sites, can apply to buildings, structures, and objects (National Register Bulletin 15, page 21).

Electronic correspondence (dated June 14, 2012) from Sara Fogelquist (SHPO) Liz Dickey (NDOT), regarding the revised context, indicates that 'As long as the context evaluates the resources under all criteria and addresses all of the resources within the APE...then the context would appear to support the eligibility recommendations in the HRIFs.' At this time, the SHPO recommends that the resources identified within the APE remain unevaluated under Criteria D.

Resource Identification

Regarding *archaeological* resources, the SHPO notes that the APE and the corresponding inventory will be submitted once the design information is available.

Regarding *architectural* resources, those constructed in 1972 or earlier were documented utilizing Nevada's Historic Resource Information Form (HRIF). The APE includes 702 parcels and 631 acres. Had the APE been constructed by buffer rather than by parcel the APE would have been more appropriate given the scale and nature of the undertaking (36 CRF 800.15.d).

Based on the submitted information:

Thirty-three resources were documented using Nevada's Historic Resource Inventory Form (HRIF) and 3 potentially eligible historic districts were identified, including the Sierra Vista Ranch Historic District, the Irateabal Farm Historic District, and the Trosi Family/Kiley Ranch Historic District. (Please see list below.)

Based on the submitted information, the SHPO concurs with FHWA that the following 8 resources are not individually eligible but are eligible as contributing resources within the Sierra Vista Historic District (SHPO Resource Number: D93):

#	SHPO Resource Number	Individual Eligibility	District Eligibility
1	B11946	Not Eligible	Contributing, A & C
2	B11947	Not Eligible	Contributing, A & C
3	B11948	Not Eligible	Contributing, A & C
4	B11949	Not Eligible	Contributing, A & C
5	B11950	Not Eligible	Contributing, A & C
6	B11951	Not Eligible	Contributing, A & C
7	B11952	Not Eligible	Contributing, A & C
8	B11953	Not Eligible	Contributing, A & C

Based on the submitted information, the SHPO concurs with FHWA that the following 4 resources are not individually eligible but are eligible as contributing resources within the Trosi Family/Kiley Ranch Historic District (SHPO Resource Number: D94):

#	SHPO Resource Number	Individual Eligibility	District Eligibility
1	B11954	Not Eligible	Contributing, A & C
2	B11955	Not Eligible	Contributing, A & C
3	B11956	Not Eligible	Contributing, A & C
4	B11957	Not Eligible	Contributing, A & C

The HRIF completed for the Trosi Family/Kiley Ranch Historic District includes a reference to a previous survey. 'Finally, another portion of this ranch (Locus 1) has been previously recommended eligible under Criterion D due to its ability to offer significant information pertinent to the research topics detailed in other reports (Peterson and Stoner 2003). This portion of the ranch is outside the current parcel boundary due to subdivision of the ranch and ownership changes during the 2000s.' the SHPO notes that per the Architectural Inventory, the cited report completed by Peterson and Stoner was not submitted to SHPO for review (page 59). Please forward a copy of this report for SHPO's records and reference.

Based on the submitted information, the SHPO concurs with FHWA that the following 10 resources are not individually eligible but are eligible as contributing resources within the Iracabal Farm Historic District (SHPO Resource Number: D94):

#	SHPO Resource Number	Individual Eligibility	District Eligibility
1	B11958	Not Eligible	Contributing, A & C
2	B11959	Not Eligible	Contributing, A & C
3	B11960	Not Eligible	Contributing, A & C
4	B11961	Not Eligible	Contributing, A & C
5	B11962	Not Eligible	Contributing, A & C
6	B11963	Not Eligible	Contributing, A & C
7	B11964	Not Eligible	Contributing, A & C
8	B11965	Not Eligible	Contributing, A & C
9	B11966	Not Eligible	Contributing, A & C
10	B11967	Not Eligible	Contributing, A & C

Based on the submitted information, the SHPO concurs with FHWA that the following 2 properties are eligible for listing in the NRHP:

#	SHPO Resource Number	Eligibility
1	S820	Eligible, A & B
2	S828	Eligible, A, B, C

Based on the submitted information, the SHPO concurs with FHWA that the following 10 properties are not eligible for listing in the NRHP:

#	SHPO Resource Number	Eligibility
1	B11968	Not Eligible
2	B11969	Not Eligible
3	B11970	Not Eligible
4	B11971	Not Eligible
5	B11972	Not Eligible
6	B11973	Not Eligible
7	B11974	Not Eligible
8	B11975	Not Eligible
9	B11976	Not Eligible
10	B11977	Not Eligible

Based on the submitted information, the SHPO cannot concur with FHWA that the following resource is not eligible for listing in the NRHP.

#	SHPO Resource Number	Eligibility
1	S821	Unevaluated

Although the consultant recommended the resource (S 821: The Old Pyramid Highway) as eligible under Criteria A, FHWA recommend the resource as not eligible due to diminished integrity.

The HRIF indicates that resource retains its original alignment and that 'Although the segments recorded are in overall fair condition, they are the only known recorded segments of the old highway and are therefore recommended eligible under Criterion A (page 7). The SHPO questions if there are other examples of the Old Pyramid Highway that retain better integrity and that are being preserved.

The architectural inventory indicates that as a form of mitigation for S821 would be the completion of a document to 'place the impacted segments within the greater context of the highway and they development of the local transportation system' (page 73). The SHPO questions why this would be completed for mitigation and not completed as part of a context to support an eligibility recommendation for the resource. Another context that might further support an eligibility recommendation for S821 is *A Cultural Resource Inventory for the Pyramid Lake Paiute Tribe's Proposed Pelican Pointe Project, Washoe County, Nevada*, which was completed in 2011 by Kautz Environmental. A copy is available at the SHPO upon request.

At this time, the SHPO recommends treating S821 as unevaluated.

The SHPO notes that other resources within the APE were identified but were not evaluated on an HRIF. These resources include the Reno Arch Missionary Church (B11979), the Sparks Christian Church (B11978), and the Gibbons/Van Meter House (B11980), all of which are currently in agency review for a different FHWA project.

Project Effects

Although this letter is not intended to address project effects, the SHPO notes that there appears to be a discrepancy between FHWA's correspondence dated September 8, 2011 and the architectural inventory (revised June 2012), which was submitted with FHWA's correspondence, dated August 3, 2012.

Per FHWA correspondence (dated 9.8.11):

The project is not expected to induce development that would expand the APE beyond those areas stated above. In terms of induced development, this project includes two types of roadway improvements: improvements to existing roads, or construction of new roads. New road construction for this project generally would occur on steeper slopes in BLM-owned property and/or zoned open space. These areas are not likely to be developed in reasonably foreseeable future due to development restrictions and the costs associated with developing lands on steep slopes, especially when there are currently a large number of vacant commercial buildings available.

New development, as a result of improvements to existing roads, is not expected to exceed the visual APE range because: 1) there is existing available commercial space on Pyramid Highway, 2) the likelihood that development would be commercial along the existing road, 3) development would be as far from the proposed alignment as current development, and 4) the cost of leveling any new parcel in the APE (page 5).

Per the architectural inventory (revised June 2012):

Other indirect effects anticipated from the proposed transportation improvement project are likely to include further degradation of the setting of the resources due to increased access that can reasonably be expected to lead to greater traffic volumes. Also, further land development (residential and commercial) on the lands near and around the historic properties is anticipated because of increased accessibility offered by the highway improvements. These effects could best be mitigated through the photo-documentation of the historic properties accompanied by intensive archival and oral history research of the three historic districts and the Spanish Springs Valley. Similarly, the cumulative effect of the project is likely to be further urban growth and the degradation of the setting of the historic properties (page 72).

Additionally, regarding the Trosi/Kiley Ranch, per the architectural inventory (revised June 2012):

There are other buildings, including a barn, that were visible from the road and appear to be historically associated with the ranch, but are today outside of the parcel (page 63)

Abdalla
August 31, 2012
Page 6 of 6

And;

The anticipated view shed alterations at the Trosi Family/Kiley Ranch will involve the introduction of a new intersection and transition from grade level to elevated highway west and northeast of the historic district (page 64).

Based on the information noted above, there appears to be additional, visible resources that were not included in the Area of Potential Effect (APE), given the proposed project description. Although the Programmatic Agreement (PA) for this undertaking is still in draft, the SHPO will require a reevaluation of the APE for visual, audible, atmospheric, and cumulative effects in this document.

If you have questions regarding the architectural contents of this correspondence, please contact Sara Fogelquist, Architectural Historian, at 775-684-3427 or sfogelquist@shpo.nv.gov.

Sincerely,



Karyn de Dufour
Deputy State Historic Preservation Officer

cc: C. Cliff Creger, NDOT

**Appendix A:
Agency Coordination**

Wildlife Agency Correspondence



JIM GIBBONS
Governor

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION

1263 S. Stewart Street
Carson City, Nevada 89712

November 3, 2008

SUSAN MARTINOVICH, P.E., Director

In Reply Refer to:

ERIC S MISKOW, DATA MANAGER/BIOLOGIST
NEVADA NATURAL HERITAGE PROGRAM
901 S. STEWART ST, STE 5002
CARSON CITY, NV 89701

Pyramid Highway-
US-395 Connection Environmental
Impact Statement
Sensitive Species List Request

Dear Mr. Miskow:

The Federal Highway Administration (FHWA), in cooperation with the Nevada Department of Transportation (NDOT) and the Washoe County Regional Transportation Commission (RTC), has initiated an environmental impact statement (EIS) for the proposed Pyramid Highway--US 395 Connection project. The purpose of the proposed project is to address regional mobility, congestion and safety challenges faced by motorists and pedestrians that travel Pyramid Highway to Spanish Springs and Pyramid Lake.

The proposed study area extends 7.7 miles along Pyramid Highway from Queen Way north to Calle de la Plata Drive. It also includes an area extending 4.5 miles west from Vista Boulevard to Interstate 395 near the Parr/Dandini interchange (see enclosed map). The legal location of this study area spans portions of Townships 19 North and 20 North, and Ranges 19 East and 20 East.

The purpose of this letter is to request a species list within, and adjacent to, the proposed project area. Please provide a map with the species list. If you have any questions or would like to discuss the project in greater detail, please contact NDOT Biologist Lori Bellis (775) 888-7035.

Thank you for your cooperation and assistance.

Sincerely,

Steve M. Cooke, P.E., Chief
Environmental Services Division

SMC/slp
Enclosure

c. Jim O. Clarke, AICP, Jacobs Engineering Group, Inc. ✓



Level Two-A Screening Study Area

Pyramid Highway
US 395 Connector EIS





JIM GIBBONS
Governor

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION

1263 S. Stewart Street
Carson City, Nevada 89712

November 3, 2008

SUSAN MARTINOVICH, P.E., *Director*

In Reply Refer to:

ROBERT D. WILLIAMS
U.S. FISH AND WILDLIFE SERVICE
1340 FINANCIAL BOULEVARD, SUITE 234
RENO, NV 89502-7147

Pyramid Highway-US-395 Connection
Environmental Impact Statement
Threatened and Endangered
Species List Request

Dear Mr. Williams:

The Federal Highway Administration (FHWA), in cooperation with the Nevada Department of Transportation (NDOT) and the Washoe County Regional Transportation Commission (RTC), has initiated an environmental impact statement (EIS) for the proposed Pyramid Highway--US 395 Connection project. The purpose of the proposed project is to address regional mobility, congestion and safety challenges faced by motorists and pedestrians that travel Pyramid Highway to Spanish Springs and Pyramid Lake. The proposed study area extends 7.7 miles along Pyramid Highway from Queen Way north to Calle de la Plata Drive. It also includes an area extending 4.5 miles west from Vista Boulevard to Interstate 395 near the Parr/Dandini interchange (see enclosed exhibit).

The EIS study team identified a range of project alternatives which are being evaluated as part of a multi-tiered screening process. The first screening tier, or Level 1, involved evaluating the initial alternatives based on fatal flaws and their ability to meet the projects Purpose and Need. The remaining alternatives will undergo further evaluation in Level 2A. The enclosed graphic shows the Level 2A Study Area. The legal location of this study area spans portions of Townships 19 North and 20 North, and Ranges 19 East and 20 East.

In a letter dated April 1, 2008, FHWA extended an invitation to FWS to become a participating agency on the project, and in a letter dated April 25, 2008, FWS declined. In the letter, FWS stated concerns about potential impacts to the Carson wandering skipper and noted their anticipated involvement in Section 7 consultation. The purpose of this letter is to request a list of threatened and endangered species that may occur in the study area and qualitative information and references for species lists within or adjacent to the project area.

If you have any questions or would like to discuss the project in greater detail, please contact me at (775) 888-7013.

Thank you for your cooperation and assistance.

Sincerely,

Steve M. Cooke, P.E., Chief
Environmental Services Division

SMC/slp
Enclosure

c. Jim O. Clarke, AICP, Jacobs Engineering Group, Inc. ✓



Level Two-A Screening Study Area

Pyramid Highway
US 395 Connector EIS





United States Department of the Interior

FISH AND WILDLIFE SERVICE

Nevada Fish and Wildlife Office

1340 Financial Blvd., Suite 234

Reno, Nevada 89502

Ph: (775) 861-6300 ~ Fax: (775) 861-6301



November 18, 2008
File No. 2009-SL-0052

Mr. Steven M. Cooke
Nevada Department of Transportation
1263 South Stewart Street
Carson City, Nevada 89712

Dear Mr. Cooke:

Subject: Species List Request for Pyramid Highway – U.S. 395 Project, Washoe County, Nevada

In response to your letter received on November 6, 2008, the following federally-listed species may occur in the subject project area:

- Carson wandering skipper (*Pseudocopaeodes eunus obscurus*), endangered

This list fulfills the requirement of the U.S. Fish and Wildlife Service (Service) to provide information on listed species pursuant to section 7(c) of the Endangered Species Act of 1973, as amended (Act), for projects that are authorized, funded, or carried out by a Federal agency.

The Nevada Fish and Wildlife Office no longer provides species of concern lists. Most of these species for which we have concern are also on the sensitive species list for Nevada maintained by the State of Nevada's Natural Heritage Program (Heritage). Instead of maintaining our own list, we are adopting Heritage's sensitive species list and partnering with them to provide distribution data and information on the conservation needs for sensitive species to agencies or project proponents. The mission of Heritage is to continually evaluate the conservation priorities of native plants, animals, and their habitats, particularly those most vulnerable to extinction or in serious decline. Consideration of these sensitive species and exploring management alternatives early in the planning process can provide long-term conservation benefits and avoid future conflicts.

TAKE PRIDE[®]
IN AMERICA

For a list of sensitive species by county, visit Heritage's website at www.heritage.nv.gov. For a specific list of sensitive species that may occur in the project area, you can obtain a data request form from the website or by contacting Heritage at 901 South Stewart Street, Suite 5002, Carson City, Nevada 89701-5245, (775) 684-2900. Please indicate on the form that your request is being obtained as part of your coordination with the Service under the Act. During your project analysis, if you obtain new information or data for any Nevada sensitive species, we request that you provide the information to Heritage at the above address. Furthermore, certain species of fish and wildlife are classified as protected by the State of Nevada (see <http://www.leg.state.nv.us/NAC/NAC-503.html>). Before a person can hunt, take, or possess any parts of wildlife species classified as protected, they must first obtain the appropriate license, permit, or written authorization from the Nevada Department of Wildlife (visit <http://www.ndow.org> or call 775-688-1500).

Because wetlands, springs, or streams are known to occur in the vicinity of the project areas, we ask that you be aware of potential impacts project activities may have on these habitats. Discharge of fill material into wetlands or waters of the United States is regulated by the U.S. Army Core of Engineers (Corps) pursuant to section 404 of the Clean Water Act of 1972, as amended. We recommend you contact the Corps' regulatory Section 300 Booth Street, Room 2103, Reno, Nevada 89509, (775) 784-5304 regarding the possible need for a permit.

Based on the Service's conservation responsibilities and management authority for migratory birds under the Migratory Bird Treaty Act of 1918 (MBTA), as amended (16 U.S.C. 703 *et seq.*), we are concerned about potential impacts the proposed project may have on migratory birds in the area. Given these concerns, we recommend that any land clearing or other surface disturbance associated with proposed actions within the project area be timed to avoid potential destruction of bird nests or young, or birds that breed in the area. Such destruction may be in violation of the MBTA. Under the MBTA, nests with eggs or young of migratory birds may not be harmed, nor may migratory birds be killed. Therefore, we recommend land clearing be conducted outside the avian breeding season. If this is not feasible, we recommend a qualified biologist survey the area prior to land clearing. If nests are located, or if other evidence of nesting (*i.e.*, mated pairs, territorial defense, carrying nesting material, transporting food) is observed, a protective buffer (the size depending on the habitat requirements of the species) should be delineated and the entire area avoided to prevent destruction or disturbance to nests until they are no longer active.

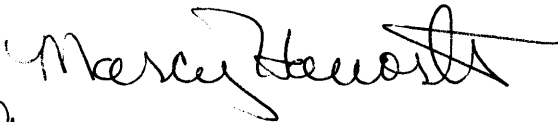
Per your request, we are including a hard copy and a CD of the final recovery plan for the Carson wandering skipper.

Mr. Steven M. Cooke

File No. 2009-SL-0052

Please reference File No. 2009-SL-0052 in future correspondence concerning this species list. If you have any questions regarding this correspondence or require additional information, please contact me or James Harter at (775) 861-6300.

Sincerely,



Robert D. Williams
Field Supervisor

Enclosures

From: Marcy_Haworth@fws.gov [mailto:Marcy_Haworth@fws.gov]
Sent: Tuesday, October 04, 2011 9:55 AM
To: Tordonato, Francesca
Subject: Re: Contact Information- updated species list for Pyramid Highway

Francesca,

I've reviewed our species list response of November 18, 2008 (File No. 2009-SL-0052). It was also reviewed on September 14, 2010, with a response to Robert Rutherford. The original list remains appropriate. You can consider this response an update to your verbal request of yesterday.

Marcy

"Tordonato, Francesca" <Francesca.Tordonato@jacobs.com>

10/03/2011 03:29 PM

To "Marcy_Haworth@fws.gov" <Marcy_Haworth@fws.gov>

cc

Subject Contact Information- updated species list for Pyramid Highway

Hi Marcy-

Thank you for the information. Here is my contact information. I look forward to receiving any updates on the Pyramid Highway US 395 Project in Washoe County.

Thank You,
Francesca

Francesca Tordonato | Jacobs | Environmental Scientist/Biologist | 303.820.5204 |
303.820.2402 fax Francesca.Tordonato@jacobs.com | www.jacobs.com



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Nevada Fish and Wildlife Office

1340 Financial Blvd., Suite 234

Reno, Nevada 89502

Ph: (775) 861-6300 ~ Fax: (775) 861-6301



November 17, 2011

File No. 2012-TA-0049

Mr. Jim Clarke
(Attn: M. Seguin)
Jacobs Engineering Group, Incorporated
707 17th Street, Suite 2300
Denver, Colorado 80202

Dear Mr. Clarke:

The U.S. Fish and Wildlife Service received your company's request regarding information about possible impacts to the Carson wandering skipper (*Pseudocopaeodes eunus obscurus*) (CWS) or its habitat from the proposed Pyramid Highway - U.S. 395 Connector project. The specific area of concern is located in section 25, T. 20 N., R. 19 E., Washoe County, Nevada. We have reviewed the project information received on November 10, 2011.

The CWS is a subspecies of butterfly and in Washoe County it is known to occur in Spanish Springs and Warm Springs Valleys located within and to the northwest of the study area, respectively. The CWS has been listed as endangered under the Endangered Species Act of 1973, as amended, since August 7, 2002.

Based on the information provided, formal habitat or CWS surveys do not need to be conducted at the above specific area of concern. It is unlikely that the specific area to be impacted provides the appropriate habitat needs for the CWS due to its location near U.S. Highway 395, previous disturbance, and the limited amount (0.01 acre) of salt grass (*Distichlis spicata*) within the upland habitat.



Mr. Jim Clarke

File No. 2012-TA-0049

If you have any questions, please contact me or Marcy Haworth at (775) 861-6300.

Sincerely,


for Edward D. Koch
State Supervisor

cc:

Chief, Environmental Services Division, Nevada Department of Transportation, Carson City,
Nevada



BRIAN SANDOVAL
Governor

STATE OF NEVADA
DEPARTMENT OF WILDLIFE

1100 Valley Road
Reno, Nevada 89512
(775) 688-1500 • Fax (775) 688-1595

KENNETH E. MAYER
Director

RICHARD L. HASKINS, II
Deputy Director

PATRICK O. CATES
Deputy Director

Francesca Tordonato
Environmental Scientist/Biologist
Jacobs Engineering
707 17th Street, Suite 2300
Denver, Colorado 80202

December 8, 2011

Re: Pyramid Highway/US 395 Project

Dear Ms. Tordonato:

I am responding to your request for information from the Nevada Department of Wildlife (NDOW) on the known or potential occurrence of wildlife resources in the vicinity of the Pyramid Highway/US 395 project located in Washoe County, Nevada. In order to fulfill your request an analysis was performed using the best available data from the NDOW's wildlife sight records, commercial reptile collections, scientific collections, raptor nest sites and ranges, greater sage-grouse leks and habitat, and big game distributions databases. No warranty is made by the NDOW as to the accuracy, reliability, or completeness of the data for individual use or aggregate use with other data. These data should be considered **sensitive** and may contain information regarding the location of sensitive wildlife species or resources. All appropriate measures should be taken to ensure that the use of this data is strictly limited to serve the needs of the project described on your GIS Data Request Form. Abuse of this information has the potential to adversely affect the existing ecological status of Nevada's wildlife resources and could be cause for the denial of future data requests.

To adequately provide wildlife resource information in the vicinity of the proposed project the NDOW delineated an area of interest that included a three-mile buffer around the project area provided by you via email (December 5, 2011). Wildlife resource data was queried from the NDOW databases based on this area of interest. The results of this analysis are summarized below.

Big Game – Occupied mule deer distribution exists throughout the majority of the project area and three-mile buffer area, excluding the greater Reno/Sparks urban areas. Pronghorn antelope distribution exists in the northern portions of the project area and three-mile buffer area, as well as the eastern portion of the three-mile buffer area. Please refer to the attached maps for details regarding these big game species distributions relative to the proposed project area. There are no known bighorn sheep or elk distributions in the vicinity of the project area.

Greater Sage-Grouse – There are no known greater sage-grouse distributions in the vicinity of the project area.

One known greater sage-grouse lek site is located in the vicinity of the project area. The Spanish Springs lek is located in Township 21 North, Range 21 East, Section 30. This lek was last surveyed in 2007 and is considered Unknown status.

Raptors – Various species of raptors, which use diverse habitat types, are known to reside in the vicinity of the project area. American kestrel, bald eagle, barn owl, burrowing owl, Cooper's hawk, ferruginous hawk, golden eagle, great horned owl, long-eared owl, merlin, northern goshawk, northern harrier, northern saw-whet owl, osprey, peregrine falcon, prairie falcon, red-tailed hawk, rough-legged hawk, sharp-shinned hawk, short-eared owl, Swainson's hawk, turkey vulture, and western screech owl have distribution ranges that include the project area and three-mile buffer area. Furthermore, American

kestrel, bald eagle, barn owl, burrowing owl, Cooper's hawk, golden eagle, great horned owl, long-eared owl, merlin, northern goshawk, osprey, prairie falcon, red-tailed hawk, rough-legged hawk, and sharp-shinned hawk have been directly observed in the vicinity of the project area.

Raptor species are protected by State and Federal laws. In addition, bald eagle, burrowing owl, ferruginous hawk, northern goshawk, peregrine falcon, short-eared owl, and Swainson's hawk are NDOW species of special concern and are target species for conservation as outlined by the Nevada Wildlife Action Plan.

One raptor nest site has been identified by the NDOW in the vicinity of the project area. A red-tailed hawk nest is located in Township 20 North, Range 20 East, Section 29.

Per the *Interim Golden Eagle Technical Guidance: Inventory and Monitoring Protocols; and Other Recommendations in Support of Golden Eagle Management and Permit Issuance* (United States Fish and Wildlife Service 2010) we have extended our raptor nest database analysis for bald and golden eagle nest site locations to within ten miles of the proposed project area. Three additional golden eagle nests and no bald eagle nests are known to exist within ten miles of the project area. The golden eagle nests are located in Township 19 North, Range 20 East, Section 13; Township 21 North, Range 19 East, Section 10; and Township 21 North, Range 20 East, Section 3.

Other Wildlife Resources

The following species have also been observed in the vicinity of the project area:

American beaver	golden-mantled ground squirrel	Oregon junco
American black bear	gophersnake	Pacific chorus frog
American crow	Great Basin (Mojave black) collared lizard	Paiute sculpin
American goldfinch	Great Basin fence lizard	pine siskin
American mink	Great Basin gophersnake	quail (unknown)
American robin	Great Basin whiptail	raccoon
Barrow's goldeneye	greater sandhill crane	rainbow trout
black bullhead	green sunfish	red-breasted sapsucker
black-chinned hummingbird	green-tailed towhee	rock dove
black-shoulder kite	hawk (unknown)	roof rat
bowcut trout	hermit thrush	rufous hummingbird
Brewer's blackbird	house finch	Sacramento perch
brown (Norway)rat	house mouse	skunk (unknown)
brown creeper	house sparrow	speckled dace
brown trout	house wren	spotted bat
brown-headed cowbird	Lahontan cutthroat trout	spotted gar
bullfrog	Lahontan redbelt	spotted towhee
bullhead (unknown)	lesser goldfinch	Tahoe sucker
California ground squirrel	long-nosed leopard lizard	toad (unknown)
California kingsnake	long-tailed pocket mouse	Townsend's solitaire
California quail	mallard	tui chub
California toad	montane vole	turtle (unknown)
Canada goose	mountain chickadee	vermillion flycatcher
canyon deer mouse	mountain gartersnake	western fence lizard
Cassin's finch	mountain lion	western harvest mouse
cedar waxwing	mountain sucker	western kingbird
chisel-toothed kangaroo rat	mountain whitefish	western pond turtle

common carp	mourning dove	western rattlesnake
common muskrat	Nevada side-blotched lizard	western scrub-jay
common raven	nighthawk (unknown)	western tanager
coyote	North American deermouse	western yellow-bellied racer
dark kangaroo mouse	North American porcupine	white-crowned sparrow
desert horned lizard	North American river otter	white-faced ibis
desert woodrat	northern desert horned lizard	white-tailed antelope squirrel
European starling	northern flicker	Williamson's sapsucker
evening grosbeak	northern mockingbird	yellow-backed spiny lizard
falcon (unknown)	northern pike	yellow-bellied marmot
fathead minnow	northern sagebrush lizard	yellow-pine chipmunk
flycatcher (unknown)	Ord's kangaroo rat	yellow-rumped warbler
		zebra-tailed lizard

The above information is based on data stored at our Reno Headquarters Office, and does not necessarily incorporate the most up to date wildlife resource information collected in the field. Please contact the Habitat Division Supervising Biologist at our Western Region Reno Office (775.688.1500) to discuss the current environmental conditions for your project area and the interpretation of our analysis. Furthermore, it should be noted that the information detailed above is preliminary in nature and not necessarily an identification of every wildlife resource concern associated with the proposed project. Consultation with the Supervising Habitat biologist as the project progresses will facilitate the development of avoidance or mitigation measures that will decrease or eliminate impacts to the wildlife resources in the vicinity of the project area.

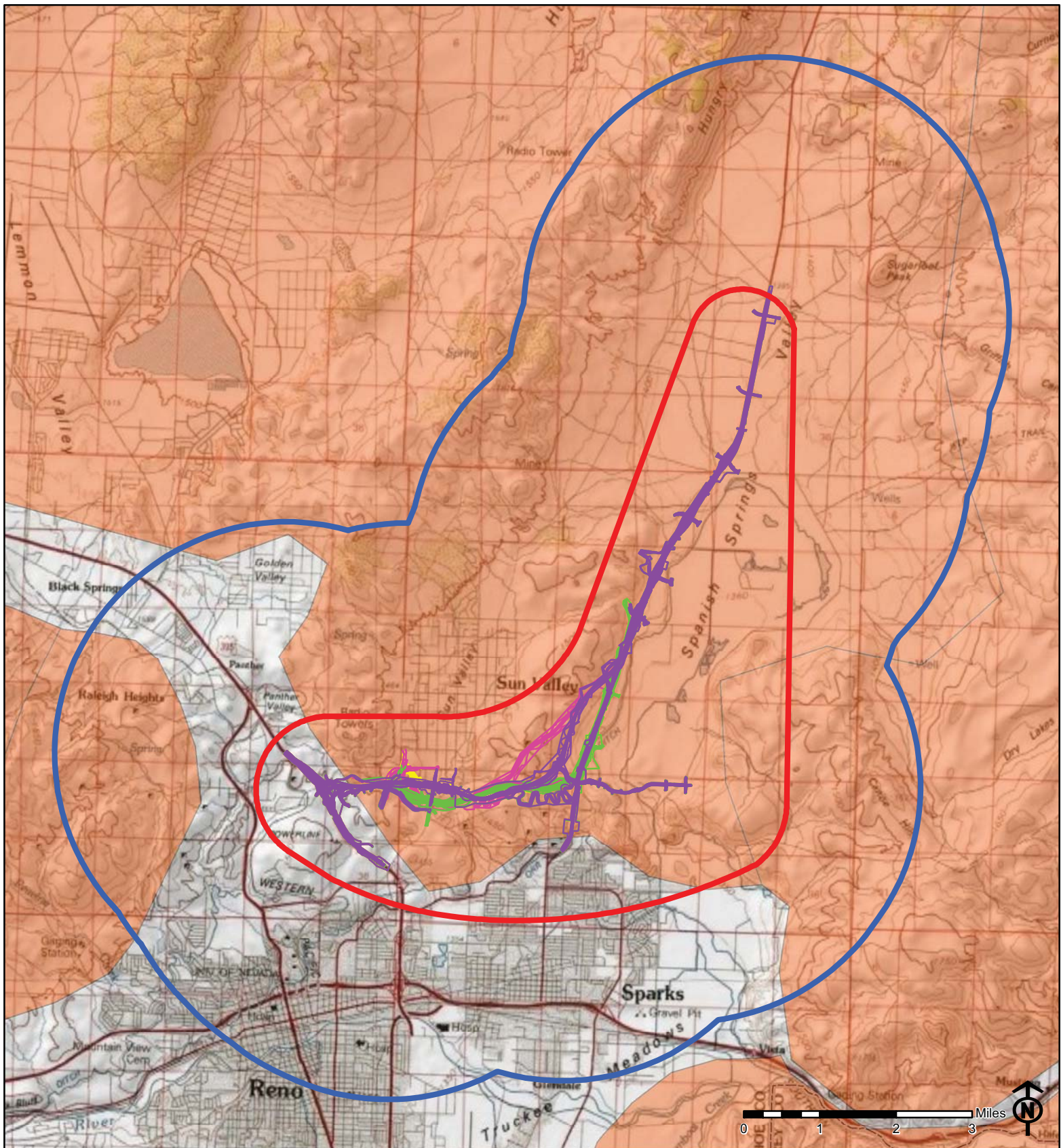
Mark Freese – Western Region Supervising Habitat Biologist (775.688.1145)

Federally listed Threatened and Endangered species are also under the jurisdiction of the United States Fish and Wildlife Service. Please contact them for more information regarding these species.









If you have any questions regarding the results or methodology of this analysis please do not hesitate to contact our GIS office at (775) 688-1565.

Sincerely,

Timothy Herrick
Conservation Aide III
Wildlife Diversity Division



Legend

- | | | | |
|--|---------------------------------|---|------------------------|
|  | Pyramid DEIS Study Area |  | Build Alternative 3 |
|  | Three-mile Buffer Area Boundary |  | Build Alternative 4 |
|  | Build Alternative 1 |  | Mule Deer Distribution |
|  | Build Alternative 2 |  | County Boundary |



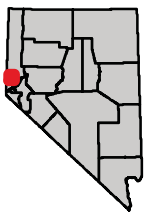
Pyramid Highway EIS Mule Deer Distribution

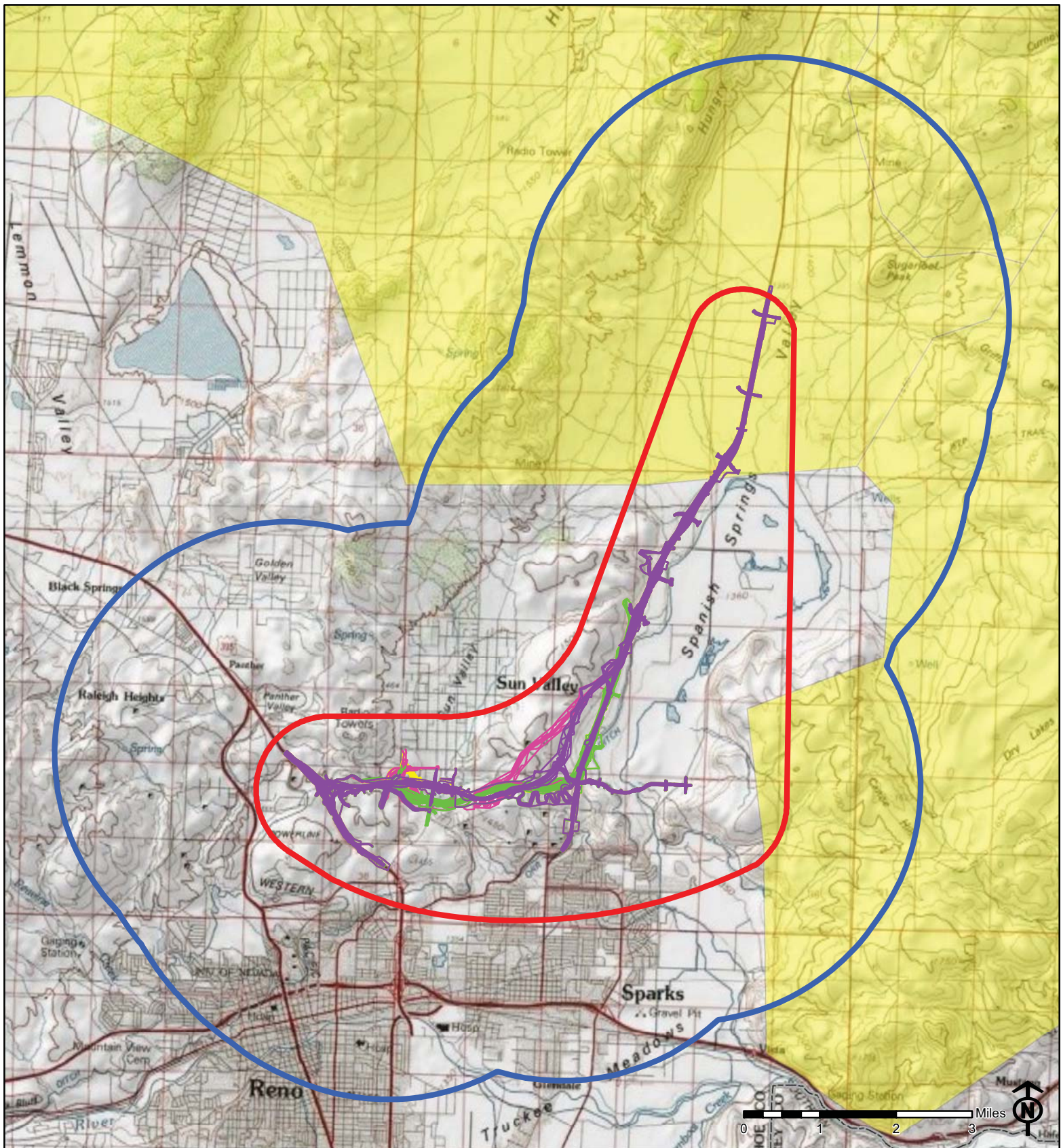


December 07, 2011









Projection: UTM Zone 11 North, NAD83

No warranty is made by the Nevada Department of Wildlife as to the accuracy, reliability, or completeness of the data for individual use or aggregate use with other data.





Legend

- | | |
|--|---|
|  Pyramid DEIS Study Area |  Build Alternative 3 |
|  Three-mile Buffer Area Boundary |  Build Alternative 4 |
|  Build Alternative 1 |  Antelope Distribution |
|  Build Alternative 2 |  County Boundary |



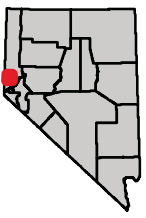
Pyramid Highway EIS Pronghorn Antelope Distribution



December 07, 2011

Projection: UTM Zone 11 North, NAD83

No warranty is made by the Nevada Department of Wildlife as to the accuracy, reliability, or completeness of the data for individual use or aggregate use with other data.



ALLEN BIAGGI
Director

Department of Conservation
and Natural Resources

JENNIFER E. NEWMARK
Administrator

JIM GIBBONS
Governor



Nevada Natural Heritage Program
Richard H. Bryan Building
901 S. Stewart Street, suite 5002
Carson City, Nevada 89701-5245
U.S.A.

tel: (775) 684-2900
fax: (775) 684-2909



STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
Nevada Natural Heritage Program
<http://heritage.nv.gov>

21 January 2009

Steve M. Cooke, P.E. Chief
Environmental Services Division
Nevada Department of Transportation
1263 South Stewart Street
Carson City, NV 89712

RE: Data request received 21 January 2009

Dear Mr. Cooke:

We are pleased to provide the information you requested on endangered, threatened, candidate, and/or at risk plant and animal taxa recorded on or near the proposed Pyramid Highway-US 395 Connection Project. We searched our database and maps for the following: a one kilometer buffer zone around the Level 2A delineation from map and shapefiles provided.

The enclosed printout lists the taxa recorded within the given area. Please be aware that habitat may also be available for: the Ames milkvetch, *Astragalus pulsiferae* var. *pulsiferae*, a Taxon determined to be Critically Imperiled by the Nevada Natural Heritage Program (NNHP); the spotted bat, *Euderma maculatum*, a Nevada Bureau of Land Management (BLM) Special Status Species; the Webber ivesia, *Ivesia webberi*, a Federal Candidate Species; and the sagebrush pygmyleaf, *Loeflingia squarrosa* ssp. *artemisiarum*, a Taxon determined to be Critically Imperiled by the NNHP. We do not have complete data on various raptors that may also occur in the area; for more information contact Ralph Phenix, Nevada Division of Wildlife at (775) 688-1565. Note that all cacti, yuccas, and Christmas trees are protected by Nevada state law (NRS 527.060-.120), including taxa not tracked by this office.

Please note that our data are dependent on the research and observations of many individuals and organizations, and in most cases are not the result of comprehensive or site-specific field surveys. Natural Heritage reports should never be regarded as final statements on the taxa or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments.

Thank you for checking with our program. Please contact us for additional information or further assistance.

Sincerely,



Eric S. Miskow
Biologist/Data Manager

At Risk Taxa Recorded Near the Pyramid US Hwy 395 Connection Project Area

Compiled by the Nevada Natural Heritage Program for the Nevada Department of Transportation
21 January 2009

<u>Scientific name</u>	<u>Common name</u>	<u>Usfws</u>	<u>Blm</u>	<u>Usfs</u>	<u>State</u>	<u>Strank</u>	<u>Grank</u>	<u>UTME</u>	<u>UTMN</u>	<u>Prec</u>	<u>Last observed</u>
Plants											
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	259258.13	4385982.12	S	1994-06-10
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	259647.42	4384806.25	S	1994-06-03
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	260254.54	4385753.87	S	1994-06-03
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	259353.24	4384654.82	S	1994-06-03
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	259297.99	4383564.90	S	1994-06-03
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	259137.68	4384292.23	S	1994-06-03
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	259911.46	4385697.16	S	1994-06-10
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	260102.70	4384292.14	S	1994-06-03
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	258984.49	4383539.91	S	1997-04-16
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	259088.25	4384504.67	S	1994-06-03
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	260160.89	4384873.33	S	1994-06-03
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	256662.47	4385167.69	S	1994-06-03
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	258464.35	4384571.34	S	1997-04-16
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	259537.18	4385941.71	S	1994-06-10
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	260219.69	4385204.87	S	1994-06-03
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	256448.45	4385114.93	S	1994-06-03
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	259656.47	4384231.02	S	1994-06-03
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	259880.85	4384375.34	S	1994-06-03
<i>Mimulus ovatus</i>	Steamboat monkeyflower					S1S2	G1G2Q	251947.70	4381986.57	G	1984-PRE
<i>Plagiobothrys glomeratus</i>	altered andesite popcornflower		N			S2S3	G2G3	259366.36	4384653.17	S	1998-06-21
<i>Plagiobothrys glomeratus</i>	altered andesite popcornflower		N			S2S3	G2G3	259925.85	4385746.87	M	1999-PRE
Invertebrates											
<i>Euphydryas editha monoensis</i>	Mono checkerspot	xC2	N			S1	G5T2T3	260843.93	4379144.35	G	1918-05-10
Reptiles											
<i>Actinemys marmorata marmorata</i>	northwestern pond turtle	xC2		C		S3	G3G4T3Q	262235.91	4377774.22	G	1941
<i>Actinemys marmorata marmorata</i>	northwestern pond turtle	xC2		C		S3	G3G4T3Q	265563.60	4377148.00	G	1940
<i>Elgaria coerulea palmeri</i>	Sierra alligator lizard		N		YES	S2S3	G5T4	267388.10	4380580.35	S	1988
Mammals											
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat		N;C	S;I;L	YES	S2	G4	T20N R20E		M	1942-01
Birds											
<i>Agelaius tricolor</i>	Tricolored Blackbird	xC2	N;C		YES	S1B	G2G3	258114.77	4378241.57	G	1972-03-09

U. S. Fish and Wildlife Service (Usfws) Categories for Listing under the Endangered Species Act:

x C2 Former Category 2 Candidate, now species of concern

Bureau of Land Management (Blm) Species Classification:

N Nevada Special Status Species - designated Sensitive by State Office
C California Special Status Species (see definition S and N)

United States Forest Service (Usfs) Species Classification:

S Region 4 (Humboldt-Toiyabe NF) sensitive species
I Region 5 (Inyo NF) sensitive species
L Region 5 (Lake Tahoe Basin Management Unit) sensitive species
C Region 5 sensitive species, not yet known from Inyo NF or LTBMU

Nevada State Protected (State) Species Classification:

Fauna:

YES Species protected under NRS 501.

Precision (Prec) of Mapped Occurrence:

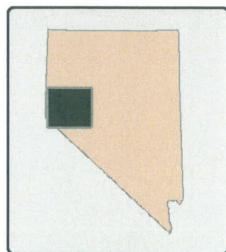
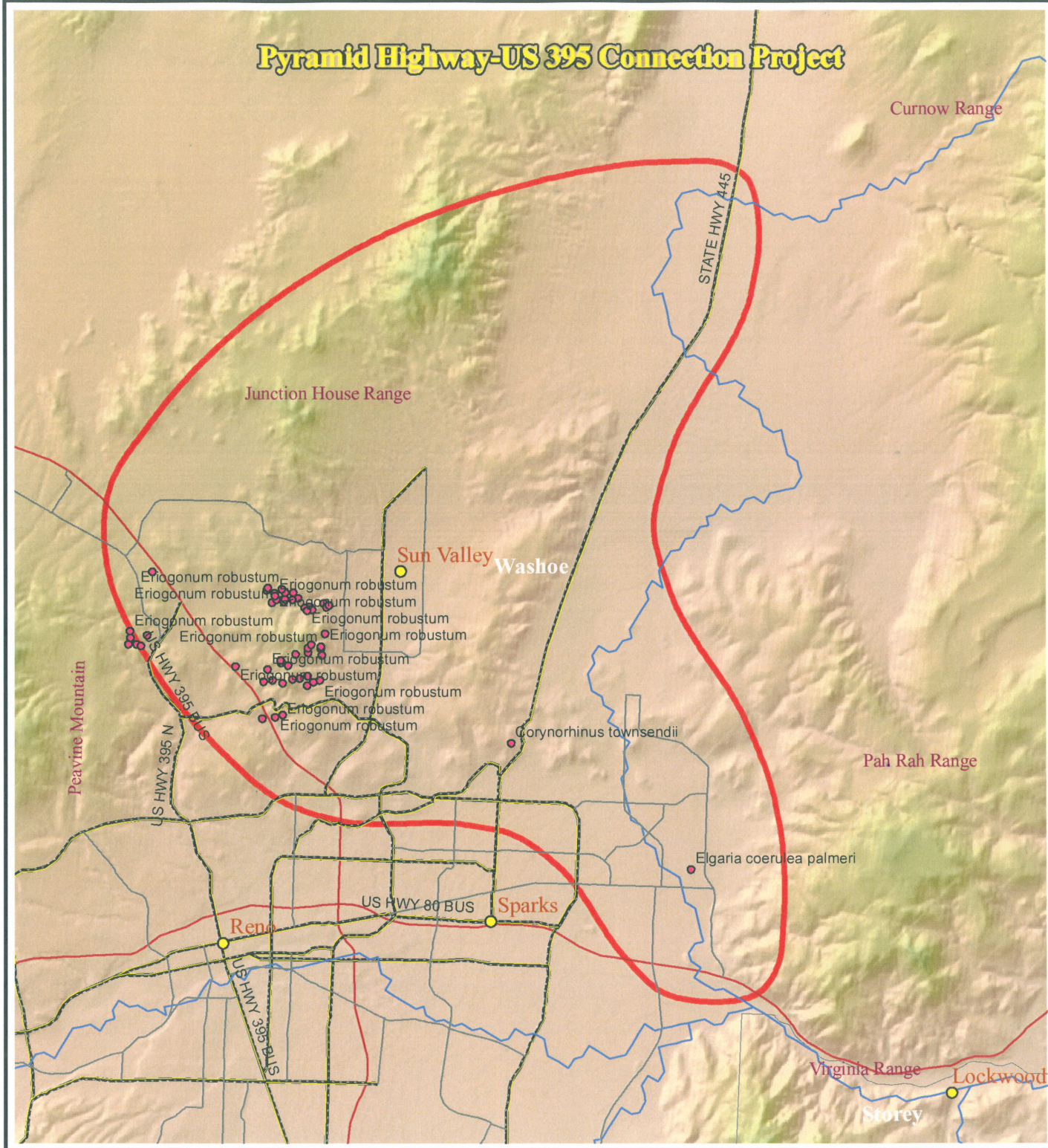
Precision, or radius of uncertainty around latitude/longitude coordinates:

S Seconds: within a three-second radius
M Minutes: within a one-minute radius, approximately 2 km or 1.5 miles
G General: within about 8 km or 5 miles, or to map quadrangle or place name

Nevada Natural Heritage Program Global (Grank) and State (Srank) Ranks for Threats and/or Vulnerability:

G Global rank indicator, based on worldwide distribution at the species level
T Global trinomial rank indicator, based on worldwide distribution at the infraspecific level
S State rank indicator, based on distribution within Nevada at the lowest taxonomic level
1 Critically imperiled and especially vulnerable to extinction or extirpation due to extreme rarity, imminent threats, or other factors
2 Imperiled due to rarity or other demonstrable factors
3 Vulnerable to decline because rare and local throughout its range, or with very restricted range
4 Long-term concern, though now apparently secure; usually rare in parts of its range, especially at its periphery
5 Demonstrably secure, widespread, and abundant
A Accidental within Nevada
B Breeding status within Nevada (excludes resident taxa)
H Historical; could be rediscovered
N Non-breeding status within Nevada (excludes resident taxa)
Q Taxonomic status uncertain
U Unrankable
Z Enduring occurrences cannot be defined (usually given to migrant or accidental birds)
? Assigned rank uncertain

Pyramid Highway-US 395 Connection Project



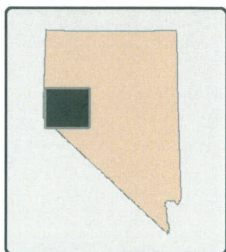
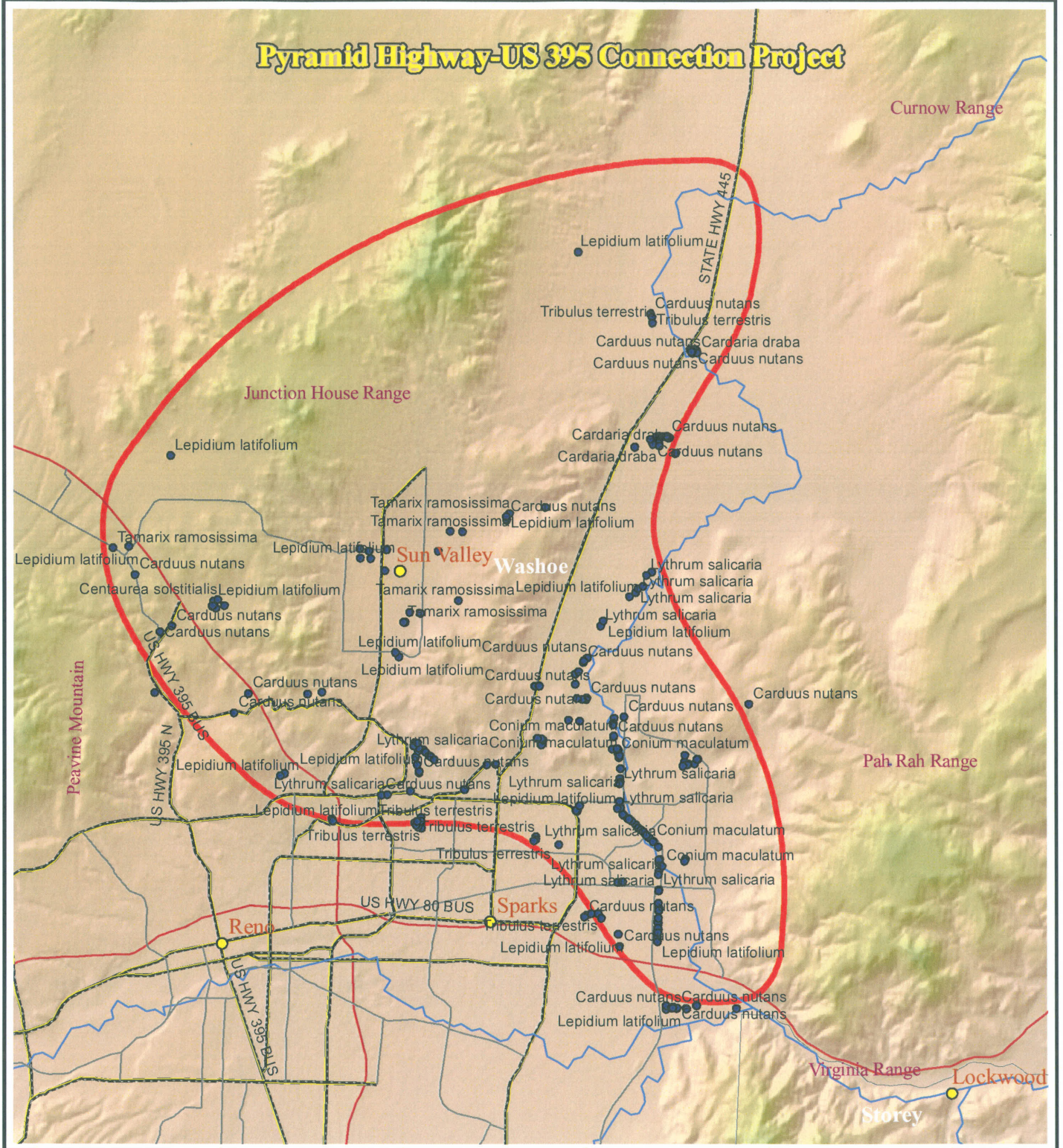
Legend

- At-Risk Species Locations
-  Level 2A Study Area



0 0.30.6 1.2 Miles

Pyramid Highway-US 395 Connection Project



Legend

- Noxious Weed Locations
-  Level 2A Study Area



0 0.30.6 1.2 Miles



A scale bar showing distances in miles: 0, 0.3, 0.6, and 1.2.



**Appendix A:
Agency Coordination**

Parks and Recreation / Section 4(f) Correspondence



RECEIVED

PUBLIC WORKS DEPARTMENT

MAR 04 2008

Regional Transportation Commission
Engineering Department

February 29, 2008

Mr. Don Hicks
BLM Field Manager
Carson City Field Office
5665 Morgan Mill Road
Carson City, NV 89701

Fax No: (775) 885-6147
Date Faxed: 02/29/08
HARD COPY TO FOLLOW

**RE: NOTICE OF REALTY ACTION:
RECREATION AND PUBLIC PURPOSES ACT CLASSIFICATION OF
PUBLIC LAND IN WASHOE COUNTY, NEVADA WEDEKIND PARK**

Dear Mr. Hicks:

In response to the BLM request for written comments to the Notice of Realty Action to lease and subsequently convey approximately 265 acres of public land in Washoe County to the City of Sparks for the purpose of using the land for a regional park, the City of Sparks provides the following comments:

The City of Sparks concurs that the BLM has followed the proper administrative procedures in reaching the decision to lease/convey the 265 acres of public lands, under the Recreation and Public Purposes (R&PP) Act as amended to the City of Sparks for the development of a regional park. The lease/conveyance is consistent with the Carson City Consolidated Resource Management Plan (2001).

The Sparks City Council also recognizes the need for future transportation improvements in the rapidly growing areas to the north of downtown Sparks. As such, the City believes that the park project and future transportation improvements will be compatible unless it is subsequently determined otherwise in the environmental analysis for the transportation projects.

The City of Sparks believes that it is in the best interest of the public to develop the land into a regional park. The Sparks City Council has Master Planned the area for a passive regional park with a view point, open spaces, trails, play areas, and picnic pavilion.



Mr. Don Hicks
February 29, 2008
Page -2-

Thank you for the opportunity to comment on the Notice of Realty Action. Please contact me at (775) 353-2310 should you have questions or comments.

Sincerely,

A handwritten signature in black ink that reads "Wayne A. Seidel". The signature is fluid and cursive, with the first name "Wayne" being larger and more prominent than the last name "Seidel".

Wayne A. Seidel, P.E.
Public Works Director

Cc: Shaun Carey, City Manager
Randy Mellinger, Assistant City Manager
Stan Sherer, Parks & Recreation Director
Doug Maloy, RTC Project Manager



MAYOR

November 12, 2008

Abdelmoez A. Abdalla
Environmental Program Manager
Federal Highway Administration
705 North Plaza, Suite 220
Carson City, Nevada 89701

Dear Mr. Abdalla:

On August 20, 2007, the Sparks City Council held a Transportation Workshop and formally determined that joint recreation and transportation uses were compatible within the property being acquired from the Bureau of Land Management for the Wedekind Regional Park.

The official record reflects that the Sparks City Council approved Option 3 as presented by the Regional Transportation Commission of Washoe County. Option 3 reserved joint recreation and transportation use within the property. Further evaluation of transportation needs in the area will occur during the development of the Environmental Impact Statement (EIS) for the Pyramid Highway/east-west connector element of the Regional Transportation Plan. The City of Sparks is a participating agency for the EIS and will be involved in the evaluation of alternatives as the EIS process continues.

There has been cooperative planning throughout the Environmental Assessment (EA) conducted by the BLM for the Wedekind Regional Park property. As stated in the EA, it was and still is the intention of all parties to reserve joint recreation and transportation use within the property until or unless the Pyramid Highway/east-west connector EIS determines otherwise.

Sincerely,

Geno R. Martini
Mayor



REGIONAL TRANSPORTATION COMMISSION

Public Transportation • Streets and Highways • Planning

April 9, 2009

Mr. Ron Wenker
State Director
Bureau of Land Management
1340 Financial Boulevard
Reno, NV 89502

Re: Sparks Justice Courts Complex and Wedekind Regional Park Environment Assessment
NV 030-06-010

Dear Mr. Wenker:

We request your help in clearing up a misunderstanding as to the intent of the above referenced Environmental Assessment.

In December of 2007, the Bureau of Land Management's Carson City Field Office (BLM) completed an Environmental Assessment (EA) and issued a Finding of No Significant Impact. As a result of planning and coordination between the BLM, the City of Sparks, Washoe County, and the Regional Transportation Commission (RTC) during the development of the EA, language was included in the EA pertaining to joint recreation and transportation use within the property. Furthermore, it has always been the intent of the City of Sparks, Washoe County and the RTC to allow joint recreation and transportation uses on the property identified in the EA and the Recreation and Public Purposes (RP&P) lease. The transportation use is to accommodate a future regional road identified in both the City of Sparks Master Plan and the 2040 Regional Transportation Plan.

The Federal Highway Administration (FHWA), Carson City staff, are not accepting the joint use purpose of the EA and the RP&P lease, therefore we are requesting you provide written support and clarification of the EA and RP&P lease as it pertains to joint recreation and transportation uses.

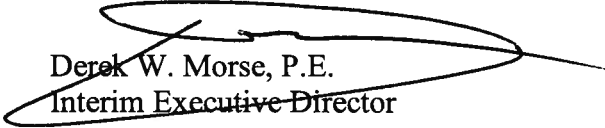
We made this request of Linda Kelly, your Sierra Front Field Office Manager. She felt that BLM had already provided FHWA a complete copy of the Environmental Assessment, and therefore the letter was not necessary.

This specific language is in the EA, but was inadvertently left out of the RP&P. The City of Sparks and your Sierra Front Field Office staff have offered to amend the language in the lease, but FHWA staff has stated that an amended lease would be after the fact and therefore could be construed as a possible change to the intent of the EA. If it is the opinion of BLM that amending the lease to specifically mention joint recreation and transportation use does not change the intent of the EA, would you please consider stating that in your letter to the FHWA.

For your convenience, we have attached a draft letter to the FHWA Carson Office, Division Administrator.

We appreciate your consideration of this request. Please feel free to contact me if you would like to discuss this matter further.

Sincerely,



Derek W. Morse, P.E.
Interim Executive Director

DWM/DMM/dmt

Attachment: Sample letter to FHWA

cc: Linda J. Kelly, Manager BLM Sierra Front Field Office
Jo Anne Hufnagle, Property Agent, BLM
Robert J. Russell, P.E., RTC Engineering Director
Doug Maloy, P.E., RTC Project Manager

April 9, 2009

Susan Klekar
Division Administrator
Federal Highway Administration
705 North Plaza, Suite 200
Carson City, Nevada 89701

Subject: Bureau of Land Management's Environmental Assessment, EA-NV-030-06-010

Dear. Ms. Klekar:

The Bureau of Land Management issued an Environmental Assessment in December of 2007 and a Finding of No Significant Impact in the same month.

The Environmental Assessment established several possible land uses for the 287 acre parcel under the Recreation and Public Purposes land transfer. Uses for the transferred property include the Sparks Justice Court Complex for Washoe County and the Wedekind Regional Park for the City of Sparks Parks and Recreation Department.

The Environmental Assessment does not exclude joint transportation use for either of the above mentioned land uses. The Environmental Assessment does recognize future transportation needs as stated in the 2040 Regional Transportation Plan.

The Environmental Assessment and its intent is a result of cooperative efforts by the Bureau of Land Management, the City of Sparks, Washoe County Public Works, and the Regional Transportation Commission of Washoe County. Based on our understanding of the planning and consultation between the stakeholders during the development of the Environmental Assessment, it is our opinion that it has always been the intent of the Bureau of Land Management, City of Sparks, Washoe County, and the Regional Transportation Commission to allow joint recreation and transportation uses on the transferred property.

Sincerely,



COPY

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Carson City District Office

5665 Morgan Mill Road

Carson City, Nevada 89701

http://www.blm.gov/nv/st/fo/carson_city_field.html



In reply refer to:
2912 (NVC0000)

Mr. Derek W. Morse, P.E.
Interim Executive Director, RTC
P.O. Box 30002
Reno, NV 89520

Dear Mr. Morse:

Ron Wenker, BLM Nevada State Director, has asked me to respond to your correspondence of April 9, 2009. BLM frequently deals with competing uses for public lands and can certainly appreciate the difficulties in finding suitable lands for major transportation projects such as the Pyramid Highway and US-395 Connector Project. I've discussed the issues you've raised regarding the Wedekind Regional Park Recreation and Public Purposes (R&PP) lease and the analysis and decision process with Linda Kelly, the Sierra Front Field Manager and her staff. I've also reviewed the enclosed April 3, 2009 letter from the Nevada Division of the Federal Highway Administration (FHWA) regarding the highway project and the specific issues you've raised.

In 2001, BLM and Washoe County completed a joint land use plan for public lands within the urban interface area of southern Washoe County. That planning process included extensive public involvement and resulted in designation of the land now included in the Wedekind Regional Park for recreation and public purpose uses under the R&PP Act. The intent of the Wedekind Regional Park Environmental Assessment NV 030-06-010 (EA) was to assess the potential environmental impacts of specific R&PP use proposals from the City of Sparks for a regional park and from Washoe County for a justice court complex in accordance with the National Environmental Policy Act (NEPA). Details of the proposals are presented in the Proposed Action section of the EA.

BLM has had a number of discussions with FHWA in regards to the Wedekind Park R&PP lease and the associated EA and decision record. FHWA's statement in the enclosed letter that neither the language in the EA nor the language in the lease establishes joint transportation and park use is accurate. The City's application for R&PP lease did not include transportation use beyond park access and access to existing homes and utilities. The Scoping and Issue Identification section of Chapter 3 of the EA contains the following wording: "RTC has indicated that they

APR 22 2009

RECEIVED

APR 27 2009

Regional Transportation Commission
Engineering Department

RECEIVED

APR 24 2009

Regional Transportation Commission

plan to begin a NEPA EIS process to address the Pyramid Highway Corridor and east/west Corridor in the near future...No analysis of the transportation proposals is included in this document." BLM did not inadvertently leave specific language on joint recreation and transportation uses out of the City of Sparks' R&PP lease.

Should the City of Sparks request amendment of their lease to revise their proposed development plan to include a transportation route, BLM would review that proposal and determine whether the proposed changes are allowable under the R&PP Act and if so, whether an existing NEPA document adequately analyzes the proposed revision or whether additional NEPA analysis is required prior to a decision on lease amendment. BLM has not been contacted by the City regarding a proposed amendment to the lease. The City has completed some perimeter fencing and clean-up projects on the lease area and to our knowledge will be continuing with development of authorized recreational facilities.

Based on the information in FHWA's enclosed letter, I am confident that they understand the purpose and intent of the EA and the R&PP lease. I am unable to provide the requested letter to FHWA since joint recreation and transportation use was not part the City's application for this land, and therefore was not analyzed by BLM or authorized in the R&PP lease. If you have questions, or if you would like to arrange a meeting to discuss this further, please contact me.

Sincerely,



Teresa J. Knutson
Acting District Manager

Enclosure

cc: Ron Wenker, BLM State Director Nevada



705 North Plaza St. Suite 220
Carson City, NV 89701

April 3, 2009

In Reply Refer To:
HENV-NV

Nevada Division

Subject: Pyramid Highway and US-395 Connector EIS,
Section 4 (f) Applicability of Wedekind Property

Ms. Susan Martinovich, P.E.
Director, Nevada Department of Transportation
1263 South Stewart Street
Carson City, Nevada 89712

Attention: Todd Montgomery

Dear Ms. Martinovich:

On November 17, 2008, the Regional Transportation Commission (RTC) of Washoe County requested a determination on Section 4(f) applicability for the Wedekind Park property in the City of Sparks as it relates to the Pyramid Highway and US-395 Connector project. The RTC staff provided documentation that outlined their position on the Wedekind Park Section 4(f) issues.

Since we received the initial correspondence, we have held numerous meetings with our legal counsel, other FHWA experts on Section 4(f) issues, Nevada Department of Transportation (NDOT) Environmental Services Division, and the Bureau of Land Management (BLM). On March 18, 2009, we held a meeting to discuss the Section 4(f) issues with RTC and NDOT staff, while our legal counsel participated by conference call.

The following includes the three questions the RTC asked in their letter with the FHWA Nevada Division's response in *italics*.

1. How do you think the Section 4 (f) regulations apply for the purpose of the transportation EIS? *The Section 4 (f) regulations apply to the Wedekind Park. For Section 4(f) purposes, Wedekind would be considered a park, and subject to the law and associated regulations, no later than the date that the lease spelling out this designation and planned use was signed with BLM. With regard to the proposed project, the issue for FHWA then becomes whether the park and the transportation facility were jointly planned. Per 23 CFR 774.11 (i), joint planning occurs when a property is formally reserved for a future transportation facility before or at the same time a park, recreational area, or wildlife and waterfowl refuge is established and concurrent or joint planning or development of the transportation facility and the Section 4 (f) resource occurs, then any resulting impacts of the transportation facility will not be considered a use as defined in 23 CFR 774.14. Determinations regarding the applicability of Section 4(f) and compliance with its requirements, when applicable, are the responsibility of FHWA.*

**AMERICAN
ECONOMY**

2. What is your legal opinion regarding the issue that the City of Sparks and RTC feel that the language in the lease does establish joint transportation and park use because of its reference to the EA? *Our legal counsel provided his opinion about this issue during our conference call on March 18, 2007. Neither the language in the environmental assessment nor the language in the lease establishes joint transportation and park use. In fact, stating that it was the intention of all parties to reserve joint recreation and transportation use within the property until or unless the Pyramid Highway/east-west connector EIS determines otherwise is against the logical purpose of Section 4 (f). The proposed action in the EA does not include any transportation corridor (Page 3, Section 2.0 of the EA). The description of the components of the Wedekind Regional Park does not include a transportation corridor; however, it includes a trailhead, a trail system, an environmental interpretation, a neighborhood park element, and access roads to adjoining property owners (Section 2.2 of the EA). The EA states in Section 4.14 that "According to the Washoe County Open Space Program, the Wedekind Hills area, which encompasses most of the Wedekind Regional and Neighborhood Park elements of the proposed action, are visually important land forms and is considered an integral part of the Washoe County landscape. As such, the recognition and preservation of these landforms are considered important. By transferring this land to the control and active management of the City of Sparks, to be used solely for open space recreational activities, the BLM is ensuring that the character of this land will be maintained."*

3. What language do you recommend to allow for joint development under the Section 4 (f) regulation, if the lease language is allowed? *Per FHWA's 4 (f) policy, the evidence is always required for reservation of highway corridor that is contemporaneous with or prior to the establishment of the 4 (f) resource. An amendment of the lease to add joint development language at this stage of the EIS would circumvent the purpose of the Section 4 (f) regulations, especially since we know that alternatives analysis has already started for the proposed EIS project.*

Though the above response clearly demonstrates that Section 4(f) evaluation is applicable to Wedekind Park, it is still possible to use the park if there are no feasible and prudent avoidance alternatives to the use of the park and we include all possible planning to minimize harm to the park. In addition, depending on the degree of use, impact, mitigation, and enhancement, a de minimis Section 4 (f) impact evaluation may be applicable.

If you have any questions, please contact me at 687-1231.

Sincerely yours,

Bucky Bennett

for Abdelmoez A. Abdalla
Environmental Program Manager

cc: Steve Cooke, NDOT
David Orteiz, FHWA

ecc: Andrew Soderborg, FHWA
Doug Maloy, Washoe RTC
Tom Greco, Washoe RTC

**RESOLUTION OF SUPPORT
PYRAMID HIGHWAY/US 395 CONNECTOR
ENVIRONMENTAL IMPACT STATEMENT**

WHEREAS, Regional Transportation Commission (RTC) of Washoe County is preparing the Pyramid Highway/US 395 Connection Environmental Impact Statement (EIS) evaluating alternatives to improve Pyramid Highway and consideration of a new transportation corridor connecting Pyramid Highway and US 395 (Project); and

WHEREAS, Washoe County Department of Regional Parks & Open Space, City of Sparks Department of Parks and Recreation, and the Project study team, have coordinated efforts in the spirit of cooperative planning and development throughout the EIS process; and

WHEREAS, one of the Project alternatives for consideration would utilize Washoe County property (APN 035-370-01, consisting of 15.664-acres) identified for future county use (see attached map); and

WHEREAS, this Project alternative was identified in an effort to minimize impacts to the Sun Valley community as compared to other alternatives considered in the EIS; and

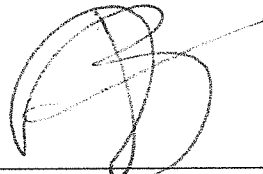
WHEREAS, RTC is committed to working with Washoe County to ensure accommodation of future county uses, and should this Project alternative be identified as the preferred alternative in the EIS, to participate in providing reasonable funding and possible construction activities to ensure compatibility between the roadway improvements and limited county improvements; and

WHEREAS, RTC will consider entering into an interlocal cooperative agreement between RTC, Washoe County, and City of Sparks, that describes their respective roles and responsibilities for the design, construction, operations, and maintenance of potential county improvements; and

WHEREAS, Washoe County has determined that the Project would be consistent with the Board of County Commissioners' adopted 2010-2012 strategic objectives; and

THEREFORE, BE IT RESOLVED, that the Board of Washoe County Commissioners supports cooperative transportation and county planning efforts between Washoe County, RTC, and City of Sparks with regard to future development of APN 035-370-01 to minimize impacts to the Sun Valley community as part of the Project.

ADOPTED this 23rd day of August, 2011



John Breternitz, Chairman
Washoe County Board of Commissioners

ATTEST:


for Amy Harvey, County Clerk



REGIONAL TRANSPORTATION COMMISSION

Public Transportation • Streets and Highway • Planning

October 1, 2012

Ms. Tracy Domingues, Director
City of Sparks, Parks and Recreation Department
98 Richards Way
Sparks, NV, 89431

**Re: Pyramid Highway/US 395 Connector Environmental Impact Statement
Effects to Wedekind Park**

Dear Ms. Domingues:

The Federal Highway Administration (FHWA) in cooperation with the Nevada Department of Transportation (NDOT) and the Regional Transportation Commission (RTC) are in the process of preparing an Environmental Impact Statement (EIS) to implement a plan that will maintain and improve the Pyramid Highway corridor as a viable transportation route for the Sparks urban core and the growing Northeast Truckee Meadows community.

A property administered by the City of Sparks has been determined to qualify for Section 4(f) protection as defined in 23 Code of Federal Regulations 774.17 and would experience a use by project alternatives under consideration. Wedekind Park qualifies for protection under Section 4(f) because it is a publicly-owned park.

By way of this letter, FHWA, NDOT, and RTC are requesting written concurrence from the City of Sparks, as the official with jurisdiction over Wedekind Park, that the project will not adversely affect the activities, features, and attributes that qualify this property for protection under Section 4(f) (see below).

Regulatory Background

Section 4(f) refers to the original section within the U.S. Department of Transportation Act of 1966 which established the requirement for consideration of the effects to park and recreational lands, wildlife and waterfowl refuges, and historic sites in transportation project development. Regulations codified in 23 CFR §774.3 authorize the Secretary of Transportation to approve a project that uses Section 4(f) lands without analysis of feasible and prudent avoidance alternatives if it would have *de minimis* impacts upon the Section 4(f) resource. The impacts of a transportation project on a park or recreation area that qualifies for Section 4(f) protection may be determined to be *de minimis* if:

1. The transportation use of the Section 4(f) resource, together with any impact avoidance, minimization, and mitigation or enhancement measures incorporated into the project,

does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f);

2. The official(s) with jurisdiction over the property are informed of FHWA's or FTA's intent to make the *de minimis* impact finding based on their written concurrence that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f); and
3. The public has been afforded an opportunity to review and comment on the effects of the project on the protected activities, features, and attributes of the Section 4(f) resource.

Section 4(f) Use

Four build alternatives are being analyzed in the Draft EIS, each of which would result in very slight differences in the use of the property. For the purposes of receiving *de minimis* concurrence, the following discussion assumes selection of the alternative with the highest degree of use.

A total of approximately 5.4 acres of the 250-acre Wedekind Park, which represents 2.2 percent of the park, would be subject to direct use. Use would occur in two distinct areas of the property. Approximately 1.6 acres of use would occur in the northwest corner directly adjacent to Pyramid Highway and Disc Drive where intersection improvements would occur. These uses would consist of sliver uses directly adjacent to existing roadways, and include placement of fill slopes within the park property. Proposed development of the park includes access from Disc Drive in this area, which would be accommodated in the proposed design. Approximately 3.8 acres of use are associated with construction of a stormwater detention basin in the southwest portion of the park adjacent to Pyramid Highway and existing residential uses. The proposed stormwater detention basin would consist of an unfenced, shallow, natural appearing depression.

As stated, both areas of use are located on the periphery of the park adjacent to existing transportation features. Neither of these areas contains proposed recreation features associated with the park. Proposed uses of the park would not adversely affect the features, attributes, or activities that qualify the property for protection under Section 4(f). The attached figure illustrates the uses of Wedekind Park.

The Study team minimized use of Wedekind Park throughout the preliminary design performed for this Study. Design for the water quality feature initially included a deeper basin with steeper slopes; however, this would be less natural in appearance and require fencing that would detract from the park setting. Additionally, an attempt to include a storm drain that would pipe stormwater from this area directly to the proposed receiving stream was examined. This would require construction of a new drain system and a 1.9-mile easement through the neighborhood, which was deemed infeasible. A secondary outlet was examined to be located directly west of Wedekind Park; however, this would require construction of a detention basin on the Iratcabal Farm property, which is another Section 4(f) resource. Therefore, the design team is pursuing the concept of constructing a shallow, natural-appearing stormwater detention basin in Wedekind Park. However, the team has minimized the footprint of the alternatives to the greatest extent

possible through the use of retaining walls, and will continue to examine potential ways to further reduce impacts as the Study moves toward final design.

Design of fill slopes at the Disc Drive/Pyramid Highway intersection will be constructed to mimic the natural landscape and all disturbed areas will be revegetated. Revegetation will include reseeding with native grasses and use of native shrubs as appropriate. Similarly, design of the proposed detention basin will also mimic natural landscape to the extent possible and will also be revegetated. During construction best management practices will be employed for erosion control. Property acquisition will be completed under the Uniform Relocation Act. RTC will continue to coordinate with the City of Sparks Parks and Recreation Department on the design of the detention basin proposed in the southwest portion of the park to insure consistency with the park's planned uses and amenities. Coordination with the City of Sparks Parks and Recreation Department will continue throughout the EIS process as well as during the final design process to mitigate use of Wedekind Park.

Public Involvement

Agency coordination, including meetings, outreach, and agency scoping, began early in the EIS process and has been ongoing throughout. Uses at Wedekind Park associated with the build alternatives and FHWA's possible *de minimis* finding for Wedekind Park were presented for public review and comment at the June 13, 2012 Spanish Springs public meeting. Additionally, public input on the possible findings of *de minimis* will also be specifically requested during the public comment period for the Draft EIS, and the public will have an opportunity to comment further on the proposed improvements and potential impacts as part of the Final EIS.

Request for Concurrence

RTC requests written concurrence from the City of Sparks that effects of the project as described above, and considering the minimization and mitigation measures that have been proposed, will not adversely affect the activities, features, and attributes of Wedekind Park. This written concurrence will help satisfy the concurrence and consultation requirements of 23 CFR § 774.5(b)(2). Concurrence can be provided by signing and dating the signature block at the end of this letter. Pending your concurrence and the completion of the public involvement as described above, RTC will recommend, and anticipates FHWA's concurrence, that the proposed action will have *de minimis* impacts to Wedekind Park, and that an analysis of feasible and prudent avoidance alternatives under Section 4(f) is not required.

Sincerely,

Name
Title

cc: File

Concurrence

As the official with jurisdiction over Wedekind Park, I hereby concur with the recommendations of the project proponents that the use and impacts associated with this project, along with the identified avoidance, minimization, and mitigation measures, will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f).

By: _____

Title: _____

Date: _____

Section 4(f) Use: Wedekind Park





REGIONAL TRANSPORTATION COMMISSION

Public Transportation • Streets and Highways • Planning

April 3, 2013

Tracy Domingues, Director
City of Sparks Parks and Recreation
98 Richards Way
Sparks NV 89431

**Re: Pyramid Highway/US 395 Connector Environmental Impact Statement
Effects to Wedekind Park**

Dear Ms. Domingues:

The Federal Highway Administration (FHWA), in cooperation with the Nevada Department of Transportation (NDOT) and the Regional Transportation Commission (RTC), is in the process of preparing an Environmental Impact Statement (EIS) to implement a plan that will maintain and improve the Pyramid Highway corridor as a viable transportation route for the Sparks urban core and the growing Northeast Truckee Meadows community.

A property administered by the City of Sparks has been determined to qualify for Section 4(f) protection as defined in 23 Code of Federal Regulations 774.17 and would experience a use by project alternatives under consideration. Wedekind Park qualifies for protection under Section 4(f) because it is a publicly-owned park.

By way of this letter, FHWA, NDOT, and RTC are requesting written concurrence from the City of Sparks, as the official with jurisdiction over Wedekind Park, that the project will not adversely affect the activities, features, and attributes that qualify this property for protection under Section 4(f) (see below).

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Section 4(f) refers to the original section within the U.S. Department of Transportation Act of 1966 which established the requirement for consideration of the effects to park and recreational lands, wildlife and waterfowl refuges, and historic sites in transportation project development. Regulations codified in 23 CFR §774.3 authorize the Secretary of Transportation to approve a project that uses Section 4(f) lands without analysis of feasible and prudent avoidance alternatives if it would have *de minimis* impacts upon the Section 4(f) resource. The impacts of a transportation project on a park or recreation area that qualifies for Section 4(f) protection may be determined to be *de minimis* if:

1. The transportation use of the Section 4(f) resource, together with any impact avoidance, minimization, and mitigation or enhancement measures incorporated into the project, does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f);

2. The official(s) with jurisdiction over the property are informed of FHWA's or FTA's intent to make the *de minimis* impact finding based on their written concurrence that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f); and
3. The public has been afforded an opportunity to review and comment on the effects of the project on the protected activities, features, and attributes of the Section 4(f) resource.

Section 4(f) Use

Four build alternatives are being analyzed in the Draft EIS, each of which would result in very slight differences in the use of the property. For the purposes of receiving *de minimis* concurrence, the following discussion assumes selection of the alternative with the highest degree of use.

A total of approximately 5.4 acres of the 250-acre Wedekind Park, which represents 2.2% of the park, would be subject to direct use. Use would occur in two distinct areas of the property. Approximately 1.6 acres of use would occur in the northwest corner directly adjacent to Pyramid Highway and Disc Drive where intersection improvements would occur. These uses would consist of sliver uses directly adjacent to existing roadways, and include placement of fill slopes within the park property. Proposed development of the park includes access from Disc Drive in this area, which would be accommodated in the proposed design. Approximately 3.8 acres of use are associated with construction of a stormwater detention basin in the southwest portion of the park adjacent to Pyramid Highway and existing residential uses. The proposed stormwater detention basin would consist of an unfenced, shallow, natural appearing depression.

As stated, both areas of use are located on the periphery of the park adjacent to existing transportation features. Neither of these areas contains proposed recreation features associated with the park. Proposed uses of the park would not adversely affect the features, attributes, or activities that qualify the property for protection under Section 4(f). The enclosed figure illustrates the uses of Wedekind Park.

The Study team minimized use of Wedekind Park throughout the preliminary design performed for this Study. Design for the water quality feature initially included a deeper basin with steeper slopes; however, this would be less natural in appearance and require fencing that would detract from the park setting. Additionally, an attempt to include a storm drain that would pipe stormwater from this area directly to the proposed receiving stream was examined. This would require construction of a new drain system and a 1.9-mile easement through the neighborhood, which was deemed infeasible. A secondary outlet was examined to be located directly west of Wedekind Park; however, this would require construction of a detention basin on the Iratcabal Farm property, which is another Section 4(f) resource. Therefore, the design team is pursuing the concept of constructing a shallow, natural-appearing stormwater detention basin in Wedekind Park. However, the team has minimized the footprint of the alternatives to the greatest extent possible through the use of retaining walls, and will continue to examine potential ways to further reduce impacts as the Study moves toward final design.

Design of fill slopes at the Disc Drive/Pyramid Highway intersection will be constructed to mimic the natural landscape and all disturbed areas will be re-vegetated. Re-vegetation will include reseeding with native grasses and use of native shrubs as appropriate. Similarly, design of the proposed detention basin will also mimic natural landscape to the extent possible and will also be re-vegetated. During construction best management practices will be employed for erosion control. Property acquisition will be completed under the Uniform Relocation Act.

RTC will continue to coordinate with City of Sparks Parks and Recreation on the design of the detention basin proposed in the southwest portion of the park to insure consistency with the park's planned uses and amenities. Coordination with City of Sparks Parks and Recreation will continue throughout the EIS process as well as during the final design process to mitigate use of Wedekind Park.

Additionally, the existing access to the trailhead parking at the northern portion of Wedekind Park, which is currently accessed via a driveway on the south side of Disc Drive just east of Pyramid, will be preserved and slightly improved by the project.

Public Involvement

Agency coordination, including meetings, outreach, and agency scoping, began early in the EIS process and has been ongoing throughout. Uses at Wedekind Park associated with the build alternatives and FHWA's possible *de minimis* finding for Wedekind Park were presented for public review and comment at the June 13, 2012 Spanish Springs public meeting. Additionally, public input on the possible findings of *de minimis* will also be specifically requested during the public comment period for the Draft EIS, and the public will have an opportunity to comment further on the proposed improvements and potential impacts as part of the Final EIS.

Request for Concurrence

RTC requests written concurrence from the City of Sparks that effects of the project as described above and, considering the minimization and mitigation measures that have been proposed, will not adversely affect the activities, features, and attributes of Wedekind Park. This written concurrence will help satisfy the concurrence and consultation requirements of 23 CFR §774.5(b)(2). Concurrence can be provided by signing and dating the signature block at the end of this letter. Pending your concurrence and the completion of the public involvement as described above, RTC will recommend, and anticipates FHWA's concurrence, that the proposed action will have *de minimis* impacts to Wedekind Park, and that an analysis of feasible and prudent avoidance alternatives under Section 4(f) is not required.

Sincerely,

A handwritten signature in black ink, appearing to read 'Doug Maloy', is written over the signature line.

Doug Maloy, P.E.
RTC Project Manager

Concurrence

As the official with jurisdiction over Wedekind Park, I hereby concur with the recommendations of the project proponents that the use and impacts associated with this project, along with the identified avoidance, minimization, and mitigation measures, will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f).

By: Tracy Domingues

Title: City of Sparks Parks & Recreation Director

Date: 5/13/13

Concurrence

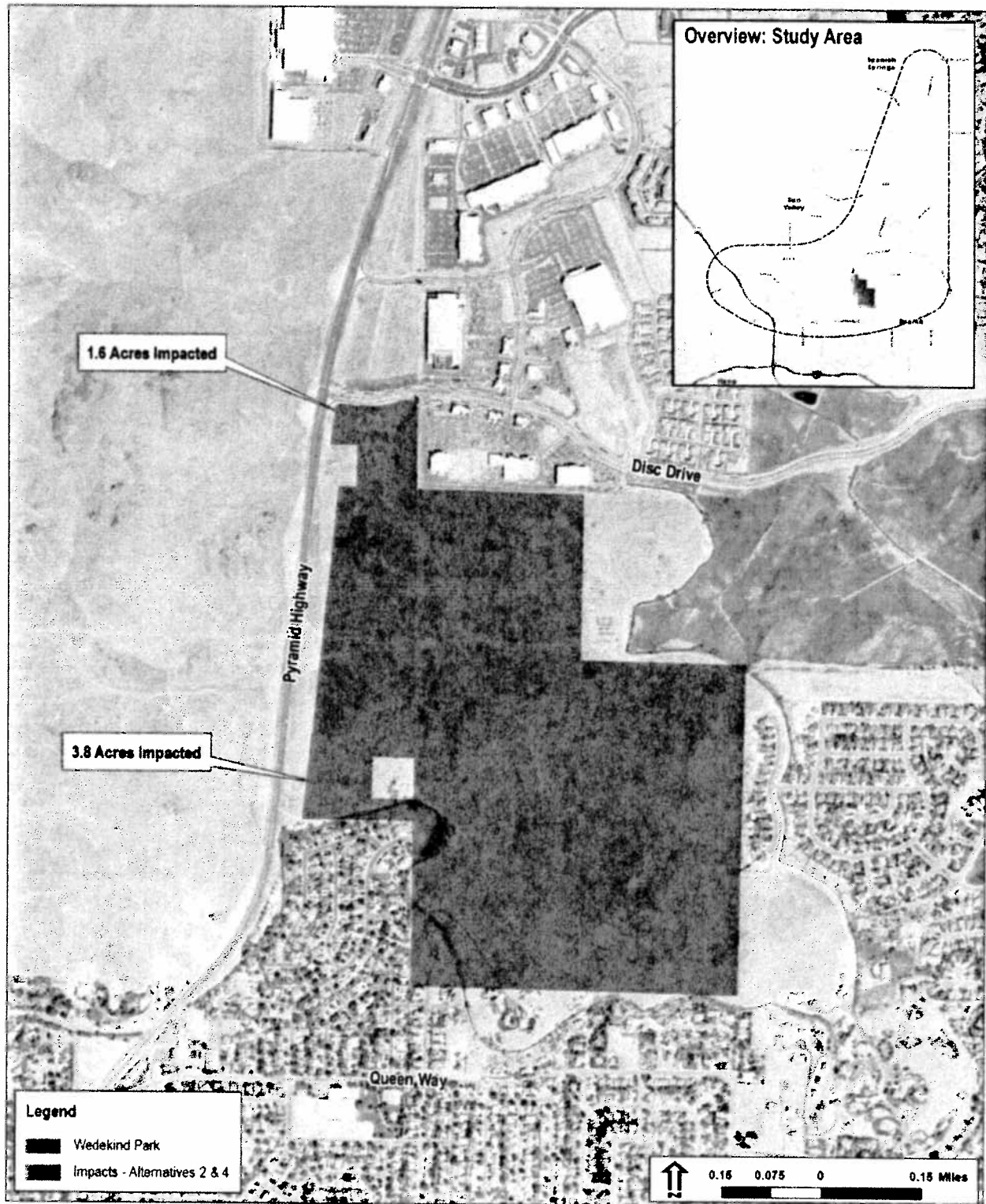
As the official with jurisdiction over Wedekind Park, I hereby concur with the recommendations of the project proponents that the use and impacts associated with this project, along with the identified avoidance, minimization, and mitigation measures, will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f).

By: Tracy Domingues

Title: City of Sparks Parks & Recreation Director

Date: 5/13/13

Section 4(f) Use: Wedekind Park



**Appendix A:
Agency Coordination**

Technical Advisory Committee

Meeting Minutes

Project: Pyramid Highway/US 395 Connection

Purpose: Technical Advisory Committee Meeting

Date Held: February 21st, 2008

Location: Sparks City Hall

Attendees:

FHWA:	Hannah Visser
RTC:	Doug Maloy, Julie Masterpool, Tom Greco
NDOT:	Bill Glaser, Anita Lyday, Michael Fuess, Daniel Nollsch
Washoe County:	Clara Lawson
City of Reno:	John Toth
City of Sparks:	John Ericson, Neil Krutz, Jim Rundle, John Dorny
Jacobs Carter Burgess:	Jim Caviola, David Dodson, Jim Clarke, Gina McAfee, Steve Oxoby
CH2M HILL:	Cindy Potter, Leslie Regos

Copies: Attendees, File

Summary of Discussion:

1. Welcome and Introductions

- Doug Maloy welcomed the attendees and gave a brief summary of the project including some project history and project goals.
- Attendee and project team introductions.

2. Review of Project Goals & Objectives

Objective: To clarify study direction/limits and ensure objectives are clear to all agencies.

- Jim Caviola gave a PowerPoint presentation outlining project history and goals
- See handout for presentation details.

3. Present Project Team Organization and Review Roles

Objective: Ensure that TAC is clear on their role and the expectation of their participation in addition to the role of the PMT and the SWG.

- Leslie Regos gave a PowerPoint presentation on study team organization and roles.
- TAC Meetings will be held on the third Thursday of every other month.
- See handout for presentation details.

4. Review Project Process

Objective: To explain process for getting several alternatives selected to advance project into NEPA/Preliminary Design.

- Jim Caviola gave a PowerPoint presentation on the project development process and alternative development.
- Jim Clarke gave a PowerPoint presentation on the NEPA process.
- See handout for presentation details.
- Jim Clarke distributed handouts defining the Purpose and Need, the Methodology for Screening Alternatives, and Agency Roles and Responsibilities.

5. Review and Discuss Problem Statement and Screening Criteria

Objective: Collect feedback on the Problem Statement, proposed alternative screening methods, and screening criteria.

- Jim Caviola opened the meeting to attendees to comment on the preliminary Purpose and Need elements defined by the project team. These elements include (See handout for details):
 - a. Address existing congestion and problems on Pyramid Highway
 - b. Service existing and forecasted population growth.
 - c. Address existing travel inefficiencies.
 - d. Address existing safety problems on Pyramid Highway
 - i. Safety study information is being collected. This element is strictly intuitive at this point in the process.
 - ii. Michael Fuess stated that safety is a concern, but issues aren't particularly out of the ordinary in comparison to other facilities of this type.
 - e. Address existing and future access needs.
 - i. Michael Fuess pointed out that changing Pyramid Highway south of McCarran to a freeway would affect existing direct accesses to businesses along the corridor and would not be allowed.
 - ii. Tom Greco pointed out that the word "access" is confusing here and that "mobility" might be a better word to describe this need.
 - f. Be responsive to regional and local plans.
 - i. The RTC will be publishing the 2040 RTP in March or April and approved in May or June.
 - ii. The City of Sparks plans include the City of Sparks Master Plan and the Northern Sparks Sphere of Influence Plan should be included.
 - iii. We will coordinate with the Pyramid/McCarran project, but neither project depends on the other. Each project has independent utility. The Pyramid/McCarran project would be considered as part of the cumulative impacts analysis.
 - iv. The City of Reno's Winnemucca Ranch should be included.
- A copy of the current Purpose and Need was handed out to the group for review and comment during the meeting. Jim pointed out some of the content and asked for group input. There was limited discussion regarding the P&N. There will be a chance to formally respond to the Purpose and Need elements as currently defined.
- Jim Caviola and Gina McAfee opened the meeting to attendees to comment on the Methodology for Screening Alternatives defined by the project team. See handout for details.
- There will be a chance to formally respond to the Methodology for Screening Alternatives currently defined.

6. Discuss Next Steps

Objective: To determine data needs from TAC members, review comments, and what to expect at next meeting.

- NOI publication.
- Participating agency invitations and Coordination Plan will be sent out by the FHWA to the City/County Manager level following publication of the Notice of Intent in the Federal Register. To assure prompt response the letters will be sent in care of the TAC reps.
 - a. Main TAC reps with agencies with multiple individuals who will receive the letters include:
 - i. Washoe County: Clara Lawson
 - ii. City of Reno: John Toth
 - iii. City of Sparks: Neil Krutz
- Existing traffic conditions and CORSIM model complete.
- Website developed.
- Results of SWG and public scoping meeting.
- Possible agency scoping meeting results.
- Next TAC Meeting will be on 4/17, location TBD.

Meeting Minutes

Project: Pyramid Highway/US 395 Connection

Purpose: Technical Advisory Committee Meeting

Date Held: April 17th, 2008

Location: NDOT District II
310 Galletti Way, Sparks NV

Attendees:	FHWA:	Hannah Visser
	RTC:	Doug Maloy, Bill Vann, Tom Greco, Chris Louis
	NDOT:	Todd Montgomery, Anita Lyday, Michael Fuess, Daniel Nollsch,
		Clara Lawson
	Washoe County:	John Toth
	City of Reno:	Neil Krutz,
	City of Sparks:	Jim Clarke, David Dodson, Gina McAfee, Steve Oxoby
	Jacobs Carter Burgess:	Cindy Potter, Leslie Regos
	CH2M HILL:	Jim Caviola
	C-A Group:	Jon Erb
	Parsons:	

Copies: Attendees, File

Summary of Discussion:

1. Welcome and Introductions

- Steve Oxoby welcomed the attendees and gave a brief agenda overview.
- Attendee and project team introductions.

2. Update on Environmental Activity – Jim Clarke

- Environmental Activity – Jim Clarke, Gina McAfee
 - a. Environmental resource data collection is on-going.
 - b. The Environmental Justice Approach Plan has been provided to NDOT for review.
 - c. The cooperating and participating agency invitation letters were sent out, but there were some issues with them. Revised letters will be sent out clarifying the role of cooperating and participating agencies (see “next steps” handout).
 - d. Once formal acceptance to participate has been received, there will be an opportunity to formally review the Purpose and Need, Initial Range of Alternatives, and the Alternative Screening Methodology.
 - e. Gina provided a “next steps” timeline handout regarding the cooperating and participating agency invitation letters and the relation to facilitating the EIS process.
 - f. Gina requested that the local participating agencies (City of Sparks, City of Reno, and Washoe County) accept invitation by 4/24/08. .PDF copies of the original letters will be

sent to the City of Sparks, City of Reno, and Washoe County. Acceptance letters should be sent to Steve Cooke at NDOT, with a copy to Doug Maloy.

- g. BLM responded to the Cooperating Agency Invitation Letter and will be a cooperating agency.
- h. FEMA responded to the NOI and provided comments.
- i. The EPA would like the project team to consider the use of market based transportation systems within our Initial Range of Alternatives. They also expressed concerns regarding water quality, indirect growth impacts, EJ, historical resources, and biological resources.

3. Update on Engineering Activity – Steve Oxoby

- Engineering Activity – Steve Oxoby
 - a. Mapping of floodplain areas.
 - b. Collecting and mapping existing utility information.
 - c. Collected as-built plans.
 - d. Obtained horizontal retracement information for Pyramid Highway and US 395.
 - e. Collected existing geotechnical information.
 - f. Developed a structural section for roadway excavation areas.
 - g. QUANTM will be used to develop alternatives. Chris Louis suggested that the project team contact Garth Oksol at the RTC to discuss issues discovered with the use of QUANTM on the RTC's Southeast Connector project.

4. Review Outcome of SWG #1 and the Public Information Meeting – Leslie Regos

- Leslie Regos gave an overview of the SWG meeting held on 4/7/08.
- Key topics in response to the project Purpose and Need included:
 - a. Location of the east/west connection. Is the RTC considering a connection to US 395 in the northern portion of Pyramid Highway
 - b. Local individual access impacts.
 - c. Impacts from additional traffic introduced to US 395 north of McCarran. Moving congestion problems to another location.
 - d. Pyramid/McCarran congestions issues.
 - e. Future projects/RTC's long range planning efforts.
- Leslie Regos gave an overview of the public meeting held on 4/15/08.
- Key topics in response to the project Purpose and Need included:
 - a. Interest in additional modes of transportation.
 - b. Expanding the study area boundary.
 - c. Safety
 - d. Better coordination with developers and Federal government. Concern about ever increasing development.
 - e. Congestion during the peak travel times.
 - f. Existing signal timing inefficiencies along the corridor.
 - g. Location of the east/west connection and other north/south alternatives.

Meeting Minutes— Pyramid Highway/US 395 Connector Progress Meeting

April 17, 2008

page 3

- h. Convert McCarran into a restricted access arterial and Pyramid Highway into a freeway going north from the McCarran intersection. On and off ramps should be designed to incorporate roundabouts or loops to avoid traffic signals.
 - i. Delays in construction.
 - j. Funding and project feasibility concerns.
 - k. Impacts from addition traffic introduced to US 395 north of McCarran. Moving congestion problems to another location.
- The public meeting was well attended and included a wide demographic mix.
- Bill Vann suggested that a survey be performed to gauge the actual interest of the public in bus-routes/mass transit in the area. Would they themselves use mass transit or do they just want their neighbors to use it?
- Tom Greco stated that recent surveys have been performed and the results show that the majority of people would not use mass transit, but would prefer if others did.
- To convert drivers to public transportation it needs to be both less expensive and faster.
- RTC's Trip Reduction Plan offers car pooling and van pooling and little interest has been displayed.
- David Jickling at the RTC can provide information regarding RTC bus service in the area.
- Jim Clarke gave an overview of the agency scoping meeting held on 4/16/08.
 - a. Not well attended.
 - b. The BLM, the Fish and Wildlife Service, and the Reno Sparks Indian Colony had representatives in attendance.
 - c. Key topics included:
 - i. Provided a project history and overview similar to first TAC meeting.
 - ii. Discussed attendance at TAC meetings.
 - iii. Endangered species in the area – Carson Wandering Skipper.
 - iv. Wedekind Park and BLM public lands which may include limitations to proposed roadway alternatives.
 - v. Tribal lands in the area.
 - 1. Abdelmoez Abdalla (FHWA) received a call from the Bureau of Indian Affairs specifically asking if any of the tribal lands within the study area are in trust status.
 - 2. There are three designations: Tribal lands, lands held in trust, and land owned by private individuals.
 - 3. The project team will need to clarify what designation any tribal lands are within the study area.

5. RTC updates to 2040 Planning Effort – Tom Greco

- Tom Greco gave a PowerPoint presentation on the RTC's 2040 planning effort (See attachment).
- Comments and questions included:
 - a. For this project, Pyramid Highway and the US 395 connection would be required to provide a LOS as a freeway facility.
 - b. If Pyramid Highway is left as an arterial 2030 standards would require a LOS C, an arterial at 2040 standards would require LOS D.
 - c. Has there been public comment on the new standards?
 - i. Mixed input from the public. Public agencies support the change, citizens initially do not support until educated on the costs associated with a higher LOS.

- d. What is the LOS standard in Las Vegas/Clark County?
 - i. LOS D on freeways and arterials.
- e. Does NDOT have its own LOS criteria?
 - i. NDOT may not agree with the RTC's LOS standards as they pertain to NDOT facilities.
- f. Hannah indicated that in order for the FHWA to sign off on a ROD document the next subsequent phase(s) of the project (e.g. ROW acquisition, final design) must be in the STIP and the project must be included in the fiscally constrained RTP.
 - i. This project is in the existing 2030 plan and will be in the 2040 plan.
- g. Do traffic forecasts take the recent economic slow down into consideration?
 - i. 10 year average growth is about 2.5% and the RTC's traffic model reflects this growth rate.
 - ii. Growth rate generated by the City of Reno, the City of Sparks and Washoe County's land use data (population and employment by zone).
 - iii. The traffic model does not measure economic booms or slowdowns.
 - iv. Discussion is on-going between the RTC Board and the Regional Planning Board to revise the RTP. The Regional Planning Board has told the RTC Board that the traffic numbers being used within the RTP are too large. This issue needs to be resolved. Approaches include:
 - 1. Run the traffic model with the existing forecasted 2040 growth level assuming that eventually the growth will get to this point even if it's not in the year 2040. RTP revision will be complete by the end of the summer.
 - 2. Use smaller numbers agreed upon by both boards and agencies. Begin the RTP revision process from square one. RTP revision will be complete sometime next year.

6. Present Traffic Results – Jon Erb

- Traffic data has been collected (Traffic counts, crash data, signal timing).
- Data has been coded into a CORSIM model.
- Outside the Pyramid/McCarran and Pyramid/Queen way intersection which are LOS E, all other intersections are LOS D or better.
- Operation of the exiting Pyramid corridor is good north of the Pyramid/McCarran and Pyramid/Queen Way intersections.
- New traffic counts were completed for all intersection except at McCarran which are approximately three years old. These potentially need to be updated.
- Parsons will provide their traffic counts to the RTC.
- Comments and questions included:
 - a. Danny Nolsch expressed concerns regarding impacts to US 395 with the projected increase of 60,000 ADT.
 - i. The 2030/2040 RTP includes improvements to US 395 and I-80.
 - ii. This project study area shadows the NDOT Washoe County Freeway Corridor Plan study area. This study is the blueprint for proposed improvements to the freeway system in Washoe County.
 - b. Michael Fuess asked why isn't the segment of Pyramid Highway south of the McCarran intersection included within the study area. In other words, why are we not looking at a potential I-80 connection as well?

- i. In response it was pointed out that the 2001 Pyramid Corridor Management Plan (Pyramid CMP) precluded any alternative along Pyramid Highway south of the McCarran intersection. This plan is a starting point for the project.
- ii. Chris Louis explained that during the development of the 2001 Pyramid CMP capacity improvements to the section of Pyramid between McCarran and I-80 were not considered due to the City of Sparks position that widening this section of Pyramid was not a realistic option. Chris feels that the CMP study area is skewed because of this and now is the time to open that option up again.
- iii. Tom Greco stated that improvements to this section of Pyramid are included in the RTC's 2030 RTP, but will not be included in the 2040 RTP.
- iv. Hannah Visser stated that alternatives brought up during the NEPA process by the public and stakeholders must be evaluated to determine if they 1) meet purpose and need and 2) are reasonable and feasible before they can be eliminated from detailed study. A convincing statement of reasons must be provided to support elimination of alternatives. Any alternatives that meet purpose and need **and** are reasonable and feasible should be carried forward for detailed review.
- v. This project is just one piece of the puzzle in addressing the long term regional transportation needs.
- vi. The Pyramid/McCarran Intersection project does not include a connection to I-80.
- vii. The statement of purpose and need for the proposed action determines the range of alternatives to be considered in an environmental document. An unduly narrow purpose and need statement cannot be used to limit the range of potential alternatives.

6. General Discussion

- The next TAC meeting will be on June 19th, same time and location.
- Potential agenda items include:
 - a. Report on progress of level 1 alternative screening.
 - b. Report on the progress of the Purpose and Need, Initial Range of Alternatives, and the Alternative Screening Methodology.

Meeting Minutes

Project: Pyramid Highway/US 395 Connection

Purpose: Technical Advisory Committee Meeting

Date Held: July 17, 2008

Location: NDOT District II
310 Galletti Way, Sparks NV

Attendees:

FHWA:	Del Abdalla, Hannah Visser
RTC:	Doug Maloy, Bill Vann, Tom Greco, Chris Louis
NDOT:	Todd Montgomery, Daniel Nollsich, Michael Fuess
Washoe County:	Clara Lawson
City of Reno:	John Toth
Reno Sparks Indian Colony:	Scott Nebesky
Jacobs Carter Burgess:	Jim Clarke, Steve Oxoby, Gina McAfee, Chris Primus, Bryan Gant (via teleconference)
CH2M HILL:	Cindy Potter, Leslie Regos, Mark Gallegos

Copies: Attendees, David Dodson, Jon Ericson, Jim Rundle, Neil Krutz, Sandra Monsalve, File

Summary of Discussion:

1. Welcome and Introductions

- Cindy Potter welcomed attendees and provided a brief overview of meeting agenda..
- Attendee and project team introductions.
- Bryan Gant was available via teleconference.
- The following documents were provided for review and discussion: Draft Initial Range of Alternatives, Draft Purpose and Need Elements, Draft Level One Alternatives Development and Screening, Alternatives Screening Process (Graphic)

2. Update on Environmental Activity – Jim Clarke

- Environmental Activity – Jim Clarke
 - a. Purpose and need update provided including major changes that have been made to Draft Initial Range of Alternatives and Draft Purpose and Need Elements since previous TAC Meeting.
 - b. Summary of revisions include:
 - i. Purpose and Need: Changes to introduction and addition of project objectives consistent with the Corridor Management Plan (CMP) completed in 2002 by the RTC. There is expansion of some of the justification narrative in the “needs” section of the document. Purpose elements remain relatively

unchanged since previous meeting. Transit should be added into the P&N but not too strongly and put as its own alternative.

- ii. Initial Range of Alternatives: Has been recategorized and work has been done on the Highway Alignment alternatives, making them more general in nature.
- c. Purpose and Need and Initial Range of Alternatives will be provided to each Participating Agency for formal 30 day comment period once first round draft documents have been revised. Still working on these documents with NDOT and FHWA and Jim requested that NDOT and FHWA meet after meeting to discuss status.
- d. Brief overview of Section 4(f) and Section 106 was provided for attendees.
 - i. Section 4(f) provides protection for certain properties including historic properties, wildlife and waterfowl refuges, and public parks.
 - ii. If properties are protected under Section 4(f), they must be avoided as best possible. If properties are impacted by an alternative, the Team must demonstrate that other feasible and prudent alternatives were looked at to avoid these properties and that all possible planning to minimize harm was conducted..
 - iii. The Team will provide information to FHWA requesting their determination of the Section 4(f) status of BLM Land and Wedekind Park, to document whether these areas are protected under Section 4(f).
 - iv. The Team has sent draft letters to NDOT to invite Consulting Parties needed for Section 106 to join the study. Section 106 of the National Historic Preservation Act also falls under the umbrella of laws that must be complied with under the EIS.

3. Level One Alternatives Screening – Jim Clarke, Chris Primus

- Level One Screening – Jim Clarke
 - a. Jim introduced the Level 1 Screening discussion by indicating that formal feed back has not yet been requested from Participating Agencies regarding Purpose and Need and Initial Range of Alternatives.
 - b. Feedback is requested from TAC members on Level One Alternatives Screening; however some of the information may change after formal feedback is received.
- Methodology – Chris Primus
 - a. Chris described the general methodology used in screening a large number of alternatives down to a fewer set.
 - b. Initial range of alternatives development was described.
 - c. 34 alternatives were developed and a description of each was provided referring to page to pages 9-23 of the Draft Level One Alternatives Screening and Development handout.
 - d. Chris noted that outside the study area, the Team will plan to assume the 2040 set of improvements. The Team plans to extract certain 2040 RTP improvements, but assume the TIP projects; both NDOT projects and local projects.
 - e. Tom Greco suggested inclusion of the 2040 projects as these are fiscally constrained.
 - f. The Team will distribute via e-mail the list of projects that are proposed for use in the baseline network to TAC membership.

- g. The TAC was reminded that the Level One Screening is a draft document and may be revised once the TAC has had the opportunity to provide formal comment on the Initial Range of Alternatives and Level One findings.
- h. Alternatives analyzed came from a variety of sources including the RTC CMP, TAC input, and comments received during public meetings.
- i. Alternatives were discussed in conceptual terms.
- j. Additional alternatives can be put through the same process at anytime during the study as they arise and are proposed.
- k. A brief overview of how the “No-Action” network was developed to be used as a traffic modeling “control” to be used during the screening process.

4. Engineering Update – Steve Oxoby

- The team is mapping constraints to evaluate alternatives that will be analyzed using QUANTM.
- QUANTM work will be done once we move to the Level 2 screening process and have a more narrowly defined set of alternatives.
- Design Criteria is being developed for both types of facilities (freeway and arterial). QUANTM will also assist in determining criteria.
- Level of Service (LOS) was an issue as RTC standards allow roads to go to LOS E but NDOT may not desire LOS E for their facilities. Steve spoke with Andrew Sorderborg at FHWA and Glenn Petrenko at NDOT and was advised LOS C and D are not a requirement as in many cases these LOS's are just not possible.
- We have flexibility on LOS so long as we are consistent.

5. Next Steps – Jim Clarke

- Purpose and Need and Range of Alternatives will be revised based on input received.
- Send out revised Purpose and Need, Initial Range of Alternatives, and Alternatives Screening Methods to Participating and Cooperating Agencies (including the TAC membership) for 30 day formal comment period.
- Revise Level One Screening documentation per comments received today plus any comments received from the Participating Agencies. Comments received will then be reviewed to determine how these comments might alter or affect the Purpose and Need and Initial Range of Alternatives, and in turn determine how the Level One Screening might be affected.
- Send out list of projects to assume in the baseline No-Action network.

6. Q & A

Q: Was the TIP or the RTP used in the No-Action scenario? Are we using a 10-year or 20-year horizon?

A: The Team would be inclined to use the 10-year horizon, but this is open to further discussion. We need feedback to determine what projects should be kept or removed from the No-Action network used in the screening process. We definitely will want to extract any projects that might be considered as an alternative being analyzed in this particular study.

Q: Why would we revise the assumed RTP network in the study area?

A: We agreed that the No-Action would include only projects from the fiscally constrained RTP minus projects that would serve the same purpose as the alternatives that are being examined.

Q: In defining the No-Action alternative, should we assume the TIP projects or the fiscally constrained RTP projects?

A: Currently only the TIP projects are included in the No-Action alternative.

Q: Regarding the Level One System Alternative to achieve LOS C, why was the LOS C used as the standard when the current standard is LOS E?

A: LOS C is mentioned as this was “inherited” from the RTC CMP and was looked at as an initial alternative. Also, in our Level One Screening this particular alternative was screened out as not meeting the Purpose and Need. The TAC agreed that we could remove this alternative from the Level One Screening.

Q: What is the existing operating level of service currently on Pyramid?

A: It is currently operating at LOS D, E, and F depending on time of day and the segment of the road. In long range analyses, the LOS along Pyramid deteriorates considerably.

Q: Do any of these alternatives include frontage roads?

A: That level of detail has not been defined yet but will be looked at once alternatives are narrowed down during the process and identified for more in-depth study.

Q: What about lane types? Are these subsets of the highway alternatives?

A: Mostly, but not necessarily.

Q: Were all of the alternatives taken from the RTC CMP?

A: Most were, but there were also some alternatives added based on the Scoping comments, and with the Team as we looked at the corridor and possible solutions to congestion.

Q: Does leaving the project name as Pyramid Highway/US 395 Connection create a situation where we are presupposing an alternative will be built at the start of the study? Will this cause questions to arise regarding a predetermined alternative that might have ramifications in the NEPA process?

A: Part of the purpose and need is to improve east/west connectivity. The name of the project is only an indication that we are going to be looking at ways to improve connections between these areas but does not necessarily state how these connections will be improved. It is important to note that we do not enter the NEPA process from scratch, we take the studies programmed in the RTP and identified as part of the CMP and derive our Purpose and Need and logical termini. These documents have legal bearing in and of themselves and identify the need for improving connections from US 395 to points east. This is where the logical termini, Purpose and Need, and selected study area stem from.

Q: Why do we not see any combined alternatives such as highway and bus?

A: Some alternatives that were found to not meet Purpose and Need as stand alone improvements were carried over as potential supplemental alternatives (transit and lane type options) to be considered in conjunction with other alternatives. Combinations of alternatives will be looked at later in the process as we study alternatives being carried over in greater detail. Some of the alternatives (such as bus) have been recommended as supplementary alternatives.

Q: How was it determined that an alternative would be advanced (or not), based on purpose and need?

A: During the Level 1 Screening, we looked generally at whether or not an alternative would clearly meet purpose and need. Danny Nollsch would like to see:

- A source for each alternative.
- More data for the reasoning for each alternative being advanced or note; provide more back-up.
- On the matrix, include each element of purpose and need.
- The percentage of Purpose and Need is met.

Q: Are the general patterns used in the CMP still being seen in the 2040 RTP?

A: In general, the 2030 patterns used for the CMP are similar to 2040, except traffic volumes are increasing more than previously anticipated.

Q: In looking at the table provided, I am seeing that those projects screened out were only those that did not meet purpose and need. What about other factors such as cost?

A: Standards such as exorbitant costs and environmental impacts are high standards that would need to be looked at in more detail as the study progresses as these are difficult to determine without more detailed study. Some of the alternatives carried over as meeting the Purpose and Need may potentially be screened out later in the process as we look at the impacts of each in more detail and conduct comparisons between alternatives.

Q: Based on this, are you saying that all of the alternatives carried forward definitely will meet Purpose and Need?

A: To date, with the data we have, we are saying that these alternatives look as though they might meet Purpose and Need with no *obvious* reasons they don't based on the information we have. As we move into more detailed study of each of the alternatives, it is possible that we may find that some of those carried over actually do not meet Purpose and Need and would then be screened out later in the screening process.

Q: When is the next public meeting scheduled?

A: The next public meeting is the second SWG meeting and is scheduled for July 28, 2008. The next open public meeting has not yet been scheduled and is still a few months out.

6. Additional Discussion

- Alternative T-2, a regional bus that travels along Pyramid, is actually the highest priority with regard to expansion of regional bus service, however its operating costs are an issue. It may be quite some time before funding is available for this expansion.
- It is important to note with regard to bus service analysis that as of October, there will be a new operations center in Sparks (Centennial Center) which might suffice for a terminus for new bus service within the corridor instead of connecting to CitiCenter in downtown Reno.
- We do not want to use the "Outer Ring Road/Freeway" label as this is misleading since there will never be an "Outer Ring Road" and this terminology is no longer used by the RTC. In the RTP, this is labeled 395/Pyramid Freeway. The highway that is located from Vista to US 395 is called the "East-West Connector."
- For the transit alternatives, does it make sense only to include transit that is TSM improvement, rather than stand-alone? Jim described we had included transit as an element of Purpose and Need but it was removed based on comments from FHWA and NDOT. Del indicated that the way it was worded previously was stated too strongly. It was requested that transit is included as part

of the Purpose and Need if the statement is softened. We should also add a “system” alternative that is an aggressive transit alternative. The RTC goal is to have six percent of every trip to be non-motorized.

- Todd indicated that most of the information regarding the alternative screening is provided, but is a matter of format. Perhaps the Team could expand the table provided so that it provides more detail as to why certain alternatives were screened out while others were not.
- We need documentation of the traffic numbers as most of these get screened out because they do not resolve congestion problems. So we need some sort of back-up documentation that is quantitative.
- When looking at traffic information that was included in the CMP compared with the current models we were given, the traffic demands remain relatively stable with regard to direction and flow but with much greater numbers. So the model provided by the CMP seems to still be valid and even more pressing with regard to need.
- Maybe we need to provide some weighting to the Purpose and Need screening process as there may be some projects that meet most of the Purpose and Need but are screened out. That might allow us to look at possibly combining alternatives that might provide better solutions but would have otherwise been screened out as individual alternatives. The Purpose and Need screening will be expanded to show all five elements of the P&N.
- The Team will be looking at rewording the Purpose and Need element of multimodal options in order to find language that we are all comfortable with and does not preclude non-multimodal options.

7. Action Items

- Revise and distribute Draft Purpose and Need Elements and Range of Alternatives to Participating Agencies and TAC membership for formal 30 day comment period.
- Provide information and request determination from FHWA regarding 4(f) status of BLM land and Wedekind Park.
- Distribute list of projects that are proposed for use in baseline network to TAC membership for review and comment.
- Provide information on screening methodology requested by Danny Nollisch.
- Expand table to provide more detail regarding elimination of alternatives, include each element of Purpose and Need, and provide a percentage P&N met criteria.
- Provide documentation of traffic numbers used during the Level One Screening.
- Consider application of weighting the Purpose and Need Elements and look at possible criteria to use in this weighting process.
- Revise Purpose and Need element of multimodal options so that non-multimodal options are not precluded from consideration.

NOTE: The next TAC meeting will be September 18, 2008 at NDOT District II.

Meeting adjourned at 3:45 p.m.



Meeting Minutes

Project: Pyramid Highway/US 395 Connection

Purpose: Technical Advisory Committee Meeting

Date Held: September 18, 2008

Location: NDOT District II
310 Galletti Way, Sparks NV

Attendees:	FHWA:	Del Abdalla, Becky Bennett, Hannah Visser,
	RTC:	Tom Greco, Doug Maloy
	NDOT:	Daniel Nollsch
	Washoe County:	Clara Lawson
	City of Reno:	John Toth
	City of Sparks:	Jon Ericson, Neil Krutz, Jim Rundle
	BLM:	JoAnn Hufnagle
	Jacobs Carter Burgess:	David Dodson, Bryan Gant, Steve Oxoby, Chris Primus
	CH2M HILL:	Cindy Potter, Leslie Regos

Copies: Attendees, Amir Soltani, Anita Lyday, Auro Majumdar, Bill Vann, Chris Louis, Jim Clarke, Julie Masterpool, Gina McAfee, Michael Fuess, Sandra Monsalve, Todd Montgomery, File

Summary of Discussion:

1. Welcome and Introductions

- Bryan Gant welcomed attendees and led attendee and project team introductions.
- Bryan provided a brief overview of meeting agenda. A hardcopy of the agenda was provided to all attendees.
- The following documents were provided for review and discussion: Draft Level One Alternatives Development and Screening, Draft Level One Alternatives Screening Results Summary (Board), Draft Level One Alternatives Screening Results (Roll Plot), Alternatives Screening Process (Board), Draft Level 2A Screening Methodology.

2. Update on Environmental Activity – Bryan Gant

- Agency Milestone Review Letters (EPA, Reno)
 - a. Cooperating and Participating Agency letters have gone out requesting input on the Purpose and Need and Range of Alternatives documents. The 30 day review period for federal agencies has expired. Comments were received from the EPA.

The review period for local and state agencies has not expired, but comments have already been received by the City of Reno.

b. EPA comments include:

- i. Purpose and Need related comments requesting that more data be provided in the document backing up the individual Purpose and Need elements. The project team response is that the Purpose and Need document is just a summary of the issues and the actual EIS document will include more detailed backup information in the Purpose and Need Chapter.
- ii. Purpose and Need related comment regarding the safety aspect of the Purpose and Need. The EPA is requesting that crash data in the study area be compared to National and State averages. The project team response is that this is proving difficult due to a lack of cohesion and compatibility between the available crash data, but based on the available data we are seeing that safety issues are steadily increasing. It is also perceived by the public that safety is an issue along the Pyramid corridor.

c. City of Reno comments include:

- i. Draft Methodology for Screening Alternatives and Initial Range of Alternatives related comments requesting that more detailed analysis occur on certain alternatives. The project team response is that this level of analysis will occur further into the alternative screening process.
- ii. Draft Methodology for Screening Alternatives related comment asking at what point in the process will public input will be sought and considered. The project team response is that this is presently being considered and will be discussed during the Alternative Screening Process Overview portion of the TAC meeting.

• Update on Section 4(f) Issues

- a. There are two areas within the study area that potentially could be considered Section 4(f), general BLM land and Wedekind park.
- b. The project team is currently working with FHWA as well as researching these issues and will have more information for the TAC members at the next meeting.

3. Alternative Screening Process Overview – Bryan Gant

- Bryan explained the overall alternative screening process, outlined current project progress, and outlined next steps. (See attached Alternative Screening Process Overview document)
 - a. The project team has been considering having a public meeting between Level 2A and Level 2B Screening. TAC members comments included:
 - b. Discussion regarding the number of alternatives to present to the public.
 - i. Jim Rundle suggested if “several” alternatives are more than three or four that would be too many to present to the public causing confusion and unnecessary comments.
 - ii. John Toth suggested that presenting less than three or four alternatives might appear to the public that an alternative has been predetermined.
 - iii. The project team has discussed going through Level 2A Screening and evaluating at that time if an appropriate number of alternatives could be presented.

- iv. This public meeting is not required in the NEPA process and therefore it could be organized quickly if necessary.

4. Level 1 Screening Review – Chris Primus

- Modifications Based on TAC Input
 - a. The project team has incorporated comments received by the TAC members during the last meeting. Revisions included the following:
 - i. Renamed alternatives to be consistent with currently used alternative titles.
 - ii. All transit alternatives now terminate at the new RTC Centennial Plaza instead of downtown Reno
 - iii. Revised assumptions for the “No-Action” network, added to the appendix.
 - b. Chris gave an explanation of the how the Level 2A Screening “No-Action” network relates to the 2040 RTP. The “No-Action” network is comprised of all the projects in the 2040 RTP except for any planned project within the Level 1 study area that may be a duplicate of, or coincide with, an alternative not screened out in the Level 1 Screening. Questions and comments included:
 - i. *Question:* Why you would exclude projects that are going to be built regardless of what happens as a result of the alternatives identified in this EIS? *Answer:* Any 2040 RTP planned project that might be part of an alternative identified can not be included in the “No-Action” network otherwise the “No-Action” would be different for each alternative. Also the “No-Action” network will evolve over the alternative screening process. Each time an alternative is screened out any roadways planned in the 2040 RTP that might have overlapped or been included within that alternative will be put back into the “No-Action” network.
 - ii. *Question:* Will excluding all these roadways from the 2040 RTP traffic model skew the traffic data? *Answer:* At this stage in the process the most important thing is that the alternative analysis is comparative. There needs to be a way to measure how the alternatives operate relative to each other.
 - iii. *Comment:* It was expressed that this “No-Action” network is too confusing and will confuse the general public. In a “No-Action” alternative nothing gets built. In this “No-Action” many projects are not getting built. *Answer:* We don’t know yet what roadway or roadways wouldn’t need to be built under a “No-Action” scenario. We do not know where the alignment is located yet for the alternatives that make it through the screening process. The “No-Action” network at this stage in the alternative analysis is a theoretical construct and serves as the only worse case scenario possible at this stage.
 - iv. The project team will discuss this further to come up with an approach to present this evolving “No-Action” network to the public.
- Level 1 Screening Update and Results
 - a. Summary of revisions include:
 - i. The Purpose and Need has been revised and now includes a transit element to show response to local and regional plans.

- ii. In the summary table, each Purpose and Need element is listed in a column. Each alternative has a “yes” or “no” to show if that element of the Purpose and Need is being met.
- iii. Each Purpose and Need element has a 20% weighted value, except for the “Responding to Regional and Local Plans” element which contains two components, “the Pyramid Corridor”, and “Improving Multi-Modal Options”. Each of these components is weighted at 10%.
- iv. Alternatives ranking at 90% or higher have been identified as alternatives to consider for Level 2A Alternative Screening. Since this level of alternative screening is still very qualitative, the project team is considering presenting Purpose and Need elements as the number met rather than as percentages to avoid misrepresenting the process as being quantitative.
- v. All alternatives to date meet fatal flaw criteria.
- vi. Since the last TAC meeting there are now four more alternatives that will be considered in Level 2A Screening.
- b. Questions and comments included:
 - i. *Question:* If the Purpose and Need elements met are presented by percentages, should they have different weights based on importance?
Answer: This would be very difficult to determine as each Purpose and Need element might have different importance to different people. Consensus would be unlikely.
 - ii. *Question:* How is the need “Responds to Local Plans for the Pyramid Corridor” different from the other needs related to Pyramid Highway?
Answer: When going through a NEPA process, the project that has been envisioned should not conflict with any local or regional plans and this is a different issue than congestion or safety along the Pyramid Corridor.
- c. The results of the highway alternatives considered in the Level 1 Alternative Screening were presented to the TAC members and no comments or issues were noted.
- d. Alignment locations for each alternative have yet to be determined and off alignment options, such as potentially with the Pyramid Freeway alternative will be considered.

5. Congestion Management Plan – Chris Primus

- The NEPA process requires that a Congestion Management Plan will be written to see if any low cost, low impact options could possibly solve the Purpose and Need.
 - a. A Congestion Management Plan is also a planning requirement contained within FHWA regulations.
 - b. The system alternatives contained within the Range of Alternatives are all strategies that a Congestion Management plan would consider.
 - c. Measures each alternatives effectiveness and feasibility individually as well as all the strategies combined.
 - d. If one or the combination of these strategies doesn’t stand alone the Congestion Management Plan determines if one of these strategies should be incorporated within any other alternative.
 - e. RTC has a congestion management system and the project team will be coordinating with the RTC planners on this document.

6. Level 2A Screening – Chris Primus/Bryan Gant

- Bryan introduced and explained the Draft Level 2A Screening Criteria (See attached Draft Level 2A Screening Criteria document)
 - a. This screening criterion contains components of traffic demand and major environmental impacts.
 - b. Questions and comments included:
 - i. *Comment:* “Recreational Land” or “Open Space” should be added as an environmental criterion.
 - ii. *Question:* At what screening level does the cost of ROW acquisition occur? *Answer:* This will begin to be measured in Level 2B Alternative Screening and will be refined during Level 3.
 - iii. *Question:* Has QUANTM been used on any alternative thus far? *Answer:* No, the team has only been gathering and inputting constraint data into the QUANTM system.
 - iv. *Question:* What specifically will be measured regarding safety? *Answer:* Measuring safety issues is difficult to quantify since we don’t have comprehensive data to use, therefore we will be looking at VHT since with increased traffic congestion accidents go up.
 - v. *Question:* Regarding the relocations, should the square footage be calculated instead of the number of estimated relocations? *Answer:* It makes more sense to look at this measure during Level 2B since alternative alignment locations will be a lot more defined.
 - vi. *Question:* Is VHT the best measure of safety? *Answer:* VHD(Delay) could also be a measure used. Headway could also be used.
 - vii. *Comment:* “Critical” habitat should be used instead of “Sensitive”.

7. Action Items

- Will revise after receiving team comments.

NOTE: The next TAC meeting will be November 20th, 2008 at NDOT District II.

Meeting adjourned at 3:20 p.m.

Meeting Minutes— Pyramid Highway/US 395 Connector Progress Meeting

September 18, 2008

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Meeting Minutes

Project: Pyramid Highway/US 395 Connection

Purpose: Technical Advisory Committee Meeting

Date Held: January 15, 2009

Location: NDOT District II
310 Galletti Way, Sparks NV

Attendees:

FHWA:	Del Abdalla, Hannah Visser
RTC:	Doug Maloy, Bill Vann, Tom Greco, Chris Louis
NDOT:	Daniel Nollisch, Anita Lyday
City of Reno:	John Toth
City of Sparks:	Neil Krutz, Jon Ericson
Washoe County:	Clara Lawson
Reno Sparks Indian Colony:	Scott Nebesky
Jacobs:	Jim Clarke, Steve Oxoby, Chris Primus, Bryan Gant
CH2M HILL:	Cindy Potter, Leslie Regos, Mark Gallegos
WCRM:	Ed Stoner

Copies: Attendees, Jim Rundle, Sandra Monsalve, Carolyn Mulvihill, Auro Majumdar, Gina McAfee, Patty Brisbin, Todd Montgomery, Amir Soltani, Steve Cooke, Mike Fuess, File

Summary of Discussion:

1. Welcome and Introductions

- Bryan Gant welcomed attendees and provided a brief overview of the meeting agenda.
- Attendee and project team introductions.
- The following documents were provided for review and discussion: Alternatives Development and Screening – Level 2A Alignment Alternatives

2. Update on Environmental Activity – Jim Clarke

- **Environmental Justice (EJ):** The Team has placed calls to Citizen Advisory Boards, Sparks Chamber of Commerce, Hispanic Chamber of Commerce, Washoe County Housing Authority, and a list of about 12 other groups as part of the EJ outreach to collect more information from the community on potential EJ areas and issues. We have been having some success but are still awaiting some return phone calls. We have received good input regarding good locations for small group meetings. A few groups have also offered their websites for advertising upcoming public meetings. EJ outreach process is ongoing.
- **Historic/Section 106 Efforts:** The Team have been working on getting Section 106 consulting party letter invitations sent out. We have coordinated with SHPO and invitees have been firmed up. Letters are currently at FHWA and will be going out to tribes, historic preservation boards, federal agencies, BLM, Cities of Reno and Sparks, Historic Reno Preservation Society, Nevada

Historic Society, and DRI. The intent of the letters is to begin getting these groups involved in the process. As alternatives are narrowed down further and cultural resource work begins, these agencies and organizations will be asked to review the reports and survey methods.

- **Section 4(f):** The Team has been coordinating with NDOT and FHWA regarding 4(f) applicability of the Wedekind property. The property was part of a BLM land transfer to develop the Sparks Courts Complex and maintain Wedekind Park. We have prepared property information and have been working with FHWA who has brought in their legal counsel to try and obtain determination regarding Section 4(f) applicability. We should have more information by the week of January 26th regarding the determination.

Bryan Gant pointed out the property in question on a project aerial for those that might not be familiar with the Wedekind property. This is a large piece of property east of Pyramid Highway and south of Disc Drive that was transferred by the BLM to the City of Sparks.

3. Alternatives Screening Process

- Bryan Gant provided a refresher overview of the screening process developed for the project. This is a three level process with the second level broken down into two parts.
 - a. Level 1 – High-level review of all possible alternatives with a qualitative assessment based on readily available information in order to narrow the alternatives without getting into large-scale, detailed analysis of all alternatives. We were successful in accomplishing this with the TAC's assistance, resulting in a total of eight alternatives now passing into Level 2A screening.
 - b. Level 2A – This screening level will determine if any of the eight alternatives carried over from the Level 1 Screening can be eliminated based on a high-level environmental and traffic review, considering the screening criteria identified for this level of screening. A preliminary traffic evaluation for each alternative is being conducted for this screening level.
 - c. Level 2B – In this phase, we will get more detailed with analysis for those alternatives that passed Level 2A and focus on what some of these alignment impacts would be relative to right-of-way, relocations, environmental resources, and access. QUANTM analysis will be utilized during this screening level. This level will also consider incorporation of transit and managed lanes.
 - d. Level 3 – This level will provide more detail in relation to horizontal and vertical alignments, footprints, impacts, costs, etc.
- The TAC's goal today is to discuss the initial Level 2A findings and lay the groundwork for finalizing this screening level and making a determination on which alternatives will move forward to the Level 2B screening.
- Bryan reviewed the Level 2A criteria discussed at the previous meeting. Some comments were received and addressed with regard to the traffic criteria. The team took the original Purpose and Need elements and identified criteria that could be used to analyze the effectiveness of each alternative relative to each Purpose and Need element. This provided the team with a set of measures used to quantify and compare each alternative's ability to meet the Purpose and Need elements, allowing for a systematic approach to identifying each measure for better direct alternative comparison.
- There were some changes to the environmental criteria used in Level 2A screening.
 1. Hazardous materials has been removed from this screening level given the level of effort to collect data at this phase. This level of effort is better suited to the next screening level where the study area will be more refined. Based on previous TAC discussion, it was determined that there are no large scale hazardous material areas within the study area that would influence the alternatives screening.
 2. Another change involves critical and sensitive habitat. At this time we will look only at critical habitat with a more in depth study taking place when the study limits have narrowed further and potential alignments are more refined.

4. Overview of Travel Demand Findings and Traffic Analysis – Chris Primus

- The traffic data reviewed included regional Vehicle Miles Traveled (VMT) and regional delay. This was used as a high-level indicator. The analysis also looked at total volume at key locations throughout the study area along some of the alignments shown on the Level 2A Alignment Alternatives handout. Travel time comparisons were also included at key points of interest. The 2040 model was used in this analysis. Bar graphs were used to provide visual reference of findings. The Team has worked with the RTC staff to apply the RTC travel demand model to the alternatives in the Level 2A screening. The modeling has resulted in good comparative information regarding traffic patterns associated with the different alternatives. These results were obtained recently and the Team has not completed its analysis of the information. The information being shared at today's meeting is to provide a preview of the early findings.
- **Regional VMT** – This is a measure of the amount of travel that occurs within the entire Reno-Sparks region. We are finding very similar results between alternatives, serving as confirmation that the model was run properly for each of the different coded networks. Although the numbers result in relatively comparable outcomes for all the alternatives, alternatives H14 through H18 have slightly higher VMT which are the alternatives that have the most capacity expansion. When we add more capacity to the system, there is increased mobility.
- **Regional Delay** – This is a measure of hours of travel delay in 2040 for the different alternatives. The no action stands out as higher than the rest of the alternatives. As we build up capacity with the various build alternatives, we begin to reduce overall delay. There were a couple of alternatives that stood out with higher delay times, but in working with the RTC, the Team found that the way the network is coded in the Copper Canyon Area caused some additional delay. This is a technical network issue that we are still working out with the RTC. In general, the model shows that each of the alternatives reduces delay pretty well. Again, this is for the entire Reno-Sparks region. The Team still needs to look more closely at how each alternative affects delay within the study area, focused within the northeastern part of the region.
- **Pyramid Highway Volumes** – 2040 average daily traffic (ADT) at various locations along Pyramid Highway were presented.
 - **Pyramid north of Los Altos** – In general, the build alternatives add quite a bit of traffic. The no-build alternative is pretty constrained and carries a low volume. Those alternatives that improve Pyramid Highway, increase the volume. Interestingly, H16 which only improves West Sun Valley and leaves Pyramid constrained, produces a reduction in volume along Pyramid. This is due to some of the traffic moving from Pyramid to the West Sun Valley route. H18, which includes both Pyramid and West Sun Valley improvements, shows that traffic drops minimally on Pyramid. This result is seen from various perspectives as we look at the traffic volumes.
 - **Pyramid north of McCarran Boulevard** – The standout alternative in this comparison is H3 which improves Pyramid and McCarran to freeways. The volume in this instance is even higher as we get closer to McCarran. The remaining alternatives are all relatively low and reduce volumes on Pyramid just north of McCarran with the exception of H17 and H18 (these are the 2 alternatives that improve Pyramid to a 6-lane arterial which has an effect on the volumes we see north of McCarran). Findings seem to indicate that traffic prefers the Pyramid Corridor. McCarran improvements also have an influence on traffic volumes within this area.
 - **Pyramid north of Oddie Boulevard** – In general, this area functions as an arterial carrying about 30,000 to 40,000 vehicles per day. A pair of exceptions to this would be alternatives H6 and H7. The connection over to McCarran on these alternatives adds capacity to the general vicinity and as a result, volumes flow better and speeds are a little better within this area. All of the alternatives reduce traffic inside the McCarran ring.
 - **McCarran east of Pyramid** – As an arterial, McCarran in all of the alternatives carries 15,000-20,000 vehicles per day in general. The exception would be H3 where McCarran west of Pyramid has been improved to a freeway which draws traffic to the east side of Pyramid on McCarran with traffic flowing toward that freeway.

- **McCarran west of Pyramid** – The standout again is alternative H3 which has improved McCarran to a freeway west of Pyramid so we see a bump to 140,000 vehicles per day. All of the other alternatives reduce the traffic volumes on McCarran compared to the no-build option. All options reduce McCarran traffic with alternatives H17 and H18 standing out. With Pyramid to the north being improved to a 6-lane arterial, the resultant capacity increase influences traffic on North McCarran to the west.
 - **US 395 Connector east of Pyramid** – The connector shows up in alternatives H14 through H18. In general, the connector carries 60,000 vehicles per day. This indicates that there are origins and destinations that favor the use of this facility. H16 is an exception as this is the alternative that only expands West Sun Valley and not Pyramid but still maintains the connector. Since Pyramid is constrained under H16, traffic does not seem to need or favor the east/west connector quite as much since Pyramid cannot be used to access the connector.
 - **US 395 Connector west of Pyramid** – We see really high volumes on this segment, generally 100,000 vehicles per day. Alternatives that differ from this general range are H14 which increases volume to 127,000. This is due to H14 providing a couple of different outlet points which attracts more traffic. H16 and H18 which have a West Sun Valley component are a bit different as well. With H16, Pyramid remains constrained which decreases the volume that can get through to the connector. With H18 there is a similar effect, but as Pyramid is also expanded, the difference is not as great. With West Sun Valley providing some relief in H18, traffic does not need the connector quite as much.
 - **US 395 Connector west of Sun Valley** – We see volumes in general around 70,000-80,000 vehicles per day. There is still a lot of attraction to the connector in this area, though not as much as we see a little further to the east due to the activity between Sun Valley and the Pyramid corridor. Again, those alternatives that do not carry quite as much volume are those that include a West Sun Valley improvement.
 - **West Sun Valley Freeway** – Under the H16 scenario, this carries about 60,000 vehicles per day north of Golden Valley Road. This would be the minimum amount of volume you would want for a freeway. Under the H18 scenario, West Sun Valley only carries about 35,000 vehicles per day (arterial level of traffic as opposed to freeway level). This is due to H18 including both West Sun Valley and Pyramid improvements.
 - **Vista** – Vista is an arterial in all scenarios with the exception of H14 and H15 where Vista is expanded to a freeway. As an arterial, Vista carries about 30,000-40,000 vehicles per day, which is a good amount of traffic for an arterial. When improved to a freeway, traffic is increased to about 50,000, which is not a large increase when improved from arterial to freeway. This suggests the origins and destinations don't really favor a Vista freeway.
 - **Wedekind Connector** – In alternatives H6 and H7 Wedekind is a freeway and as a freeway it draws quite a bit of volume from the Pyramid corridor over to McCarran. Under the H14 scenario Wedekind is an arterial and does carry quite a bit of traffic as an arterial, but not near as much as when it is a freeway.
- **Screenline analysis** – In this analysis an imaginary north/south line is drawn to measure east/west traffic that crosses that line. Compared to the no-build alternative, we see east/west traffic flow increase with each of the build alternatives. This indicates that we are helping the system with the improvements and also indicates that all of the build scenarios at this screening level are doing a reasonable job in increasing east/west connectivity. This is in line with the Purpose and Need element of improving east/west connections. In H16 and H18, the volumes on Highland Ranch and Calle de la Plata indicate that there is no significant increase in these east/west connections to attract traffic over to the West Sun Valley alternative. We see this also at Eagle Canyon which is added as an east/west connection over to the West Sun Valley Freeway and only carries a moderate amount of traffic. This serves as another perspective on the potential effectiveness of the West Sun Valley Freeway. The screenline analysis also shows just how effective a new 395 connector freeway is at carrying traffic east/west.
 - **Travel Times** – In this analysis, we have looked at the PM peak and have obtained from the model the travel times from select points around the region to Eagle Canyon.

- ***I-80 at Pyramid Way*** - The no-build has a much higher travel time relative to the other alternatives. All of the build alternatives are quite similar without any significant distinctions. All are helping to relieve traffic and improve travel times. What can be discerned from the differences is that H16 in general has a higher travel time while H18 tends to have a little lower travel time compared to the other alternatives.
- ***US 395 at Golden Valley Road*** – Again we are finding that H18 is a little lower with H16 being a little higher. In this instance, H3, H6, and H7 stand out as these are the ones without the 395 Connector. As soon as the Connector is introduced, the travel time decreases from Golden Valley Road and US 395 to Pyramid and Eagle Canyon. All of the alternatives improve travel time over the no-build scenario.
- ***Spaghetti Bowl*** – Very similar results for all of the build alternatives with the exception of higher travel time on H16 and lower travel time on H18.
- ***I-80 at Vista*** – Very similar results with the standouts again being H16 and H18.

We see a consistent pattern with H16 and H18 which are the two alternatives that have the West Sun Valley Freeway. With the West Sun Valley as the only improvement in the corridor, H16 does not do as well in general for providing good travel times in relationship to the other alternatives. It does not seem to serve origins and destinations quite as well. H18 is just a little lower than the others due to this alternative adding much more capacity than the others, allowing traffic to flow better overall. It is important to keep in mind that the difference in travel time performance is not significant considering the amount of capacity added with this alternative. Though the numbers are pretty close, this may point to a trend that is worth noting.

- **Summary Observations**

- ***West Sun Valley Freeway*** – Attracts relatively low volumes. Traffic demand remains on Pyramid when both West Sun Valley and Pyramid corridors are expanded. East/west connections to West Sun Valley traffic levels do not increase appreciably compared to other alternatives. West Sun Valley results in higher regional hours of delay than other alternatives. This alternative provides slightly slower travel times between key destinations compared to the others.
- ***US 395 Connector*** – Attracts relatively high demand and serves origins and destinations well. Traffic demand along the connector varies among alternatives depending on connectivity. The connector serves a demand for traffic between north US 395 and the Pyramid corridor. It also provides slightly faster travel times to/from north US 395 to the Pyramid corridor than those alternatives without the connector.
- ***Wedekind Connector to McCarran*** – Carries relatively high demand for an arterial and serves origins and destinations well. The expansion of McCarran to a freeway results in most increased load on the arterial McCarran east of Pyramid compared to other alternatives.
- ***Vista Freeway*** – Attracts only moderately higher volume compared to Vista as an arterial. Demand of trip origins and destinations not as well served as other facility expansions.

5. Environmental Screening Criteria and Assessment – Bryan Gant/Jim Clarke

- Bryan provided an overview of how the corridors associated with each alternative were developed, the assumptions that were made, and the criteria used during the Level 2A screening. Each alternative improvement was broken into segments to quantify impacts. For instance, if Vista Freeway is looked at as a segment, any alternative that includes a Vista Freeway would have the associated impacts in addition to the impacts from the other segments that are included in a particular alternative. Alignment assumptions used in the 2A environmental impact analysis were also discussed. The TAC was reminded that detailed engineering was not performed, but rather conceptual level engineering with conservative judgment was used in determining and defining corridors to be looked at in the Level 2A screening.

- Jim Clarke provided an overview of approach and assumptions for evaluating the environmental impacts. Jim also pointed out that the environmental assessment still requires some additional resource information and determinations in some areas.
 - **Relocations** – Where there was a structure within a corridor or being touched by a corridor a conservative approach was taken, assuming that relocation would be required. Jim pointed out segments with high numbers of residential and commercial relocation impacts, particularly along the northern segment of Vista Boulevard and within west Sun Valley. Jim also advised that cost impact comparisons were not considered in this screening level. The numbers presented were “roof top” counts and do not take into consideration whether the relocations involve single or multifamily residences, however, this will be a consideration as the numbers are refined in later screening levels. It is important to keep in mind that the “wide lines” used during the corridor relocations analysis will be narrowed and fine tuned later in the screening process, likely bringing the number of associated relocations down. However, the initial numbers discussed are good indicators of comparative impacts between alternatives.
 - **Environmental Justice** – Of the potential relocations identified, the Team looked at which of these occurred in areas identified as minority and/or low income. The Team will look at some qualitative information, for example, will structures not being relocated potentially be affected by noise, or will any alignments disrupt community cohesion? The environmental justice impacts were based on the 2000 census data. An initial EJ outreach effort was also employed to validate the information contained within the 2000 census data. Initial findings show that there will be some impact areas along the US 395 connector where it passes through Sun Valley, areas along existing Pyramid to the north, and areas along existing McCarran. The highest number would be where the US 395 connector passes through Sun Valley at approximately 50 relocations. There will also potentially be a community cohesion impact through Sun Valley associated with the US 395 connector.
 - **Critical Habitat** – The Team is awaiting data from resource agencies that we expect to receive over the next few weeks.
 - **Wetlands** – Based on the data set currently available, none of the alternatives would affect wetlands. It is likely that once alternatives are reduced further and wetlands delineations are completed, there will be some small wetlands that are found resulting in some impacts. However, at this point it does not seem to be a big differentiator between alternatives.
 - **Water Resources** – The team has a hydrology dataset and tallied stream impacts. Based on the dataset, the greatest stream impacts will be along the West Sun Valley alternative. The next highest would be along the northern end of existing Pyramid.
 - **Flood Plains** – The team looked at impacts to existing flood plains. At this point in the study, this is not seen to be a big differentiator between alternatives. Initial data shows the highest flood plain impacts within the northern end of Pyramid with approximately 37 acres impacted. This would make any alternatives that include a Pyramid widening have a higher impact. However, it is important to note that there have been a lot of drainage improvements and channelization within this area which will decrease potential impact. The actual impact will likely decrease further once we get into a higher level of design detail. Other flood plain impact areas are all below 10 acres.
 - **Historic Resources** – A file search has been performed within the study area and a number of sites were identified that are eligible to be listed or are listed with the National Register of Historic Places. These have been mapped along with many unevaluated sites. The alternatives do not affect any of the eligible sites, but they do impact a number of the unevaluated sites. It is difficult to know whether these sites will be deemed to be historic. At this point they are on the map, we have looked at the impacts, and for the 2A level they do provide some additional information. West Sun Valley would have the highest impact to unevaluated historic sites which would total approximately 26 acres of

impact. In terms of the number of unevaluated sites potentially being impacted, the alternatives are comparable with 0 to 3 sites impacted. It is important to remember that unevaluated sites need to be considered eligible until proven otherwise, so the Team will look at these again and complete the evaluation at later stages of the study once the alternatives are further refined. At this point we have only performed a file search within these corridors. Actual survey work and field evaluation will be performed on the build alternatives analyzed in detail in the DEIS.

- **Open Space/BLM/Parks** –In looking at park impacts, we have an overall recreation/park category and separate that into 4(f) and BLM impacts. In terms of 4(f) impacts we are assuming Wedekind will be considered 4(f) until we hear otherwise. For the proposed park in Sun Valley we are assuming none due to the identification of a West Sun Valley Blvd corridor that has taken place and coordination with BLM. Sun Valley, however, would still be tallied as park impact. If the Wedekind Freeway alternative passes through the screening process, some of the areas intersected will need to be evaluated further for potential 4(f) resources. Impacts are based on both existing and planned parks and recreational areas. Alternatives that include the US 395 Connector would have the highest impacts from a 4(f) standpoint assuming the Wedekind property is a 4(f) resource. With regard to park impacts in general, those alternatives that include West Sun Valley would also have a comparatively high number of impacts. Based on a TAC recommendation, BLM impacts were also included in our parks and recreational impacts. Again, the West Sun Valley and US 395 Connector alternatives would have the greatest impact on BLM property.

6. Next Steps

- There is a public meeting planned for March 4, 2009 from 5:30 p.m. to 7:30 p.m. This meeting will be an informational open house to be held at the Lazy 5 Community Center. Details and invitations will go out to TAC, SWG and the public starting in early February. We will be presenting Level 1 and 2A screening findings at this meeting and provide the public with an overall project status update to obtain public feedback prior to starting the Level 2B screening.
- The TAC will meet on February 19, 2009 to complete the Level 2A screening and review the materials that will be presented at the upcoming public meeting. Meeting invitations will be sent out to TAC members once the location has been firmed up. Materials will be sent out as soon as they become available so that TAC members can look them over prior to the February TAC meeting.
- The project team will be documenting the Level 2A findings in a matrix format similar to that used during the Level 1 screening process. There will also be a more “reader friendly” version that will be made available to the public at the March open house in addition to the detailed matrix.

7. Q & A

Q: With regard to traffic criteria measures, would LOS be a more appropriate yardstick than ADT?

A: Our thinking was to determine which of these alternatives would best carry the load so that we know that the alternatives that can carry the traffic volumes most effectively would rise to the top during the screening process. Once the potential alignments are further narrowed, we would then look at whether/which alignment(s) could be designed to meet the regional LOS standards.

Q: Is critical habitat really a concern within the study area?

A: We are still waiting for additional information and have been working with Dan Nollisch at NDOT. We have sent letters out to resource agencies to verify our findings. The assumption at this time is that none of the current alignments being considered would affect critical habitats.

Q: Where would the West Sun Valley Freeway tie into on the north end?

A: The West Sun Valley Freeway would tie in at the west end of Eagle Canyon to the north.

Q: How are alternative travel modes such as BRT, managed lanes, etc. factored into the traffic numbers presented?

A: For the Level 2A screening, we assumed 6-lane freeways for all alternatives to provide comparative traffic patterns between these alternatives. In Level 2B we will begin to analyze the potential effectiveness of HOV lanes, managed lanes, transit options, etc.

Q: Are the traffic numbers being used 2030 numbers or 2040 numbers?

A: The traffic numbers represent 2040 numbers.

Q: Are there any significant differences between alternatives looking at McCarran west of Pyramid?

A: There are some differences. Most are in a comparable range with the exception of H7 which is a bit higher. This difference appears to be due to the improvement of the Wedekind Freeway which opens up capacity in that general area so we see more volume flowing toward this freeway improvement.

Q: Has an east/west screenline analysis been performed?

A: We have not yet been able to pull the modeling information together to perform this analysis. Also, the focus on north/south screenline ties directly into our purpose and need criteria of improving east/west connectivity.

Q: In the travel time analysis, are these times directional?

A: Yes, in each case we are traveling from the various points of interest to Pyramid and Eagle Canyon. Since we are looking at PM peak, we want to make sure we are looking at PM flow which is why this direction was chosen.

Q: In the no-build alternative, what is happening in Sparks with the Southeast Connector? Is that in place on the no-build model?

A: The Southeast Connector is included in all of the alternatives modeling including the no-build alternative.

Q: Are there any large developments planned in the future that should be considered when looking at the West Sun Valley Freeway alternative?

A: As far as we know, there are no large developments being planned that would significantly affect our analysis with the exception of the Spring Mountain (formerly known as Winnemucca Ranch) development further to the north which may create additional connectivity within the area. There has also been a 2500 unit development approved at the north end of Spanish Springs. Otherwise, much of this area is developed out or has major physical constraints impeding significant further development.

Q: Will the screening eventually take into account those properties that may not be currently developed and will now be unable to be developed due to the proposed corridors?

A: Yes. This will be looked at more closely during the Level 2B screening when we apply the QUANTM analysis tool and perform additional engineering analysis.

Q: Can QUANTM deal with induced growth?

A: We have included planned but unbuilt projects into the data we're analyzing. The QUANTM tool allows for a wide range of parameters to be put into the dataset to be analyzed.

Q: Does the City of Sparks have a preference regarding an alignment through the Wedekind Park area?

A: The City would prefer a more northerly alignment. If that alternative passes through the screening process, we will need to look closely at optimizing this particular alignment. The 4(f) determination outcome will also factor into the actual alignment decisions.

Q: Do we have any documentation showing the involvement of the public in the development of the Purpose and Need?

A: Yes. The Purpose and Need elements were presented at our first public scoping meeting held on April 15, 2008. The comment sheets provided during that meeting specifically addressed the proposed Purpose and Need elements and requested feedback regarding these. The majority of the feedback received affirmed the Purpose and Need elements that were initially identified.

6. Action Items

- Outlook calendar invite to be sent out for February TAC meeting.
- Level 2A findings to be documented in matrix format and reader friendly "consumer reports" format for public distribution at March open house.
- Public noticing for March open house to begin in early February to include email blasts, newspaper advertisement, and limited direct mail.
- TAC will meet to review and finalize materials to be presented at March open house.

NOTE: Next TAC meeting will be Thursday, February 19, 2009, 1:30-3:30 p.m. at NDOT District II.

Meeting adjourned at 3:45 p.m.

Meeting Minutes

Project: Pyramid Highway/US 395 Connection

Purpose: Technical Advisory Committee Meeting

Date Held: February 19, 2009

Location: NDOT District II
310 Galletti Way, Sparks NV

Attendees:

FHWA:	Del Abdalla
RTC:	Doug Maloy, Bill Vann, Tom Greco
NDOT:	Patty Brisbin
City of Reno:	John Toth
City of Sparks:	Jim Rundle, Neil Krutz, Jon Ericson
Washoe County:	Clara Lawson
BLM	Jo Ann Hufnagle
Jacobs:	Jim Clarke, Steve Oxoby, Chris Primus, Bryan Gant
CH2M HILL:	Leslie Regos, David Dodson, Mark Gallegos

Copies: Attendees, Sandra Monsalve, Carolyn Mulvihill, Auro Majumdar, Gina McAfee, Daniel Nollsch, Anita Lyday, Todd Montgomery, Cindy Potter, Amir Soltani, Steve Cooke, Mike Fuess, Chris Louis, Hannah Visser, Scott Nebesky, File

Summary of Discussion:

1. Welcome and Introductions

- Bryan Gant welcomed attendees and provided a brief overview of the meeting agenda.
- The following documents were provided for review and discussion: Alternatives Development and Screening – Level 2A Alignment Alternatives, Draft Level 2A Screening Summary.

2. Level 2A Recap – Bryan Gant

- Bryan reviewed the Level 2A alternatives and provided a brief recap of the Level 2A traffic and environmental findings presented at the previous TAC meeting held on January 15, 2009.
- Bryan advised that the goal of today's meeting is to review additional analysis performed since the January 2009 TAC meeting and move toward finalization of the Level 2A screening and the identification of those projects that would move forward to the Level 2B analysis.

3. Update on Environmental Findings – Bryan Gant

- Initial data obtained indicated that Environmental Justice (EJ) would not be a significant issue in West Sun Valley. Data obtained since the January 2009 TAC meeting now indicates that there are more EJ areas affected than previously thought that will need to be considered during the screening process. These primarily affected the West Sun Valley alternative.
- FHWA has determined that the Wedekind Park property is an 4(f) property.

4. Additional Traffic Analysis – Chris Primus

- **LOS Findings** – LOS analysis performed indicated that all of the alternatives performed significantly better than the no-action scenario with the exception of H-16 which does not perform well when compared to the other alternatives. H-17 and H-18 also do not perform quite as well as H-3 through H-15. RTC level of service standard is LOS D on all roads under 27,000 ADT. For roads above this threshold, the RTC standard is LOS E.
- **Volume Difference Graphic** – This graphical tool was used to observe the volume changes on the various improved segments and the surrounding roadways within the study area. The graphics produced indicate that the improved sections attract a significantly increased traffic volume in addition to providing relief to other roads within the study area as compared to the no-action alternative. This tool also serves as a quality control mechanism to ensure that the model is coded correctly. After running the volume difference graphics for each of the alternatives, there were some anomalies discovered which turned out to be coding errors within the model. These coding errors are being addressed to improve the model accuracy.
- **Select Link Analysis** – This tool allows the selection of specific segments to determine the origins and destinations of the traffic on that particular segment. This tool also serves as a QC mechanism which did identify some minor anomalies that are being looked at for potential coding errors. This analysis also highlighted significant volume traveling from Spanish Springs to the North Valleys which would be well served by improving the connections from Pyramid Highway to US 395.
- Chris noted that the anomalies discovered during the QC process are not anticipated to create a significant difference in the traffic analysis results presented at the previous TAC meeting. However, they will be addressed to ensure the models are coded correctly and the results are accurate.

5. Recommendations – Bryan Gant

- It is recommended that the following alternatives be eliminated as part of the Level 2A Screening:
 - **H-3** – This alternative performs similarly to H-6 & H-7 but with much greater relocation impact.
 - **H-14** – Numerous relocation impacts on Vista Blvd with little benefit compared to other alternatives.
 - **H-16** – West Sun Valley segment has low demand and provides little benefit compared to other alternatives. Also high relocation and EJ impacts.
 - **H-18** – West Sun Valley segment has low demand and provides little benefit compared to other alternatives. Also high relocation and EJ impacts.

6. Next Steps

- There is a public meeting planned for March 4, 2009 from 5:30 p.m. to 7:30 p.m. This meeting will be an informational open house to be held at the Lazy 5 Community Center. Details and invitations will go out to TAC, SWG and the public starting in early February. The Project Team will be presenting Level 1 and 2A screening findings at this meeting and provide the public with an overall project status update to obtain public feedback prior to starting the Level 2B screening.
- The project team will be documenting the Level 2A findings in a matrix format similar to that used during the Level 1 screening process. There will also be a more “reader friendly” version that will be made available to the public at the March open house in addition to the detailed matrix.

7. Q & A

Q: With Wedekind Park being a 4(f) property, does it make sense to remove the Vista connection?

A: Work has been done with respect to the Vista connection identifying potential opportunities further north that would allow the connection to bypass the Wedekind Park property. These opportunities will be further analyzed during the Level 2B screening.

Q: Do any of the alternatives induce growth?

A: Currently we are only looking at how well the alternatives serve projected growth. Potential induced growth brought about by the various alternatives has not been used as a screening criteria.

Q: Are the Pyramid/McCarran intersection improvements included in the models?

A: These improvements are not currently included in the no-action network due to alternative H-3 being redundant to these improvements. If we decide to move forward with eliminating H-3, we can look at putting the Pyramid/McCarran intersection improvements back into the no-action network.

Q: Will the Rock connection be considered in combination with any of the other alternatives?

A: The Rock connection as well as some other smaller segments that are being screened out as part of the primary alternatives can be looked at as possible add-on projects once we get into more detailed analysis to see if they might provide additional benefit to the preferred alternative(s). These segments might also be considered as potential future improvements that could be studied as separate stand-alone projects at another time.

Q: Would improving Parr Boulevard create any effect on the volumes seen on the US 395 connector?

A: The model would suggest that improvements to Parr Boulevard would not affect volumes on the connector, but would impact the volumes on US 395 within that area.

Q: Will the March 2009 meeting be the first public meeting for this project.

A: No. There was a public scoping meeting in April 2008 which was open to the general public. There have also been Stakeholder Working Group (SWG) meetings since April 2008 to obtain public input on alternatives and the screening process. This group is made up of representatives from the Citizens and Neighborhood Advisory Boards as well as representatives from local emergency services agencies and other targeted groups.

Q: What should we tell people that might ask why we are not studying the McCarran/Pyramid Intersection?

A: There is an intersection study being performed but it is looking at a particular operational capacity issue at a particular location and focusing on current operational needs. The Pyramid/US 395 Connection Project is looking at regional, long-term mobility needs. The Project Teams for each of the projects are coordinating with one another.

8. Action Items

- TAC members have been asked to review the materials reviewed and provide comments, preferably prior to March open house to ensure everyone is in agreement with recommendations before presenting findings to the public.

Meeting Minutes— Pyramid Highway/US 395 Connector Progress Meeting

February 19, 2009

page 4

- Level 2A findings to be documented in matrix format and reader friendly “consumer reports” format for public distribution at March open house.
- Project Team will finalize displays and informational materials to be provided at public open house.
- Del requested additional public noticing in areas identified as potential EJ areas. The Project Team will discuss further with the RTC to determine areas of focus and noticing methods to be used in these areas.

NOTE: The March 19, 2009 TAC meeting has been cancelled. The next TAC meeting is currently scheduled for May 21, 2009.

Meeting adjourned at 3:00 p.m.



Date: 2/19/09

TAC MEETING ROSTER

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Date: 2/19/09


TAC MEETING ROSTER

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	<i>Jo Hufnagel</i>	BLM	775-885-6141	<i>johufnagel@blm.gov</i>
	<i>BRYAN GART</i>	JACOBS	775 850 5100	<i>bryan.gart@jacobs.com</i>
	<i>Don Clacker</i> <i>via Telephone</i>	"		



Date: 2/19/09

TAC MEETING ROSTER

SIGNATURE	NAME	AGENCY	TELEPHONE	EMAIL
	MARK CORDEROS	CITIZEN HELL		

Meeting Minutes

Project: Pyramid Highway/US 395 Connection

Purpose: Technical Advisory Committee Meeting

Date Held: May 21, 2009

Location: NDOT District II
310 Galletti Way, Sparks NV

Attendees:	FHWA:	Del Abdalla
	RTC:	Doug Maloy, Tom Greco
	NDOT:	Daniel Nollisch, Todd Montgomery
	City of Reno:	John Toth
	City of Sparks:	Jim Rundle, Neil Krutz
	BLM	Jo Ann Hufnagle
	Jacobs:	Steve Oxoby, Bryan Gant, Kevin McDermott, Glenn Lazaro
	CH2M HILL:	Leslie Regos, David Dodson, Aimee Morace

Copies: Attendees, Sandra Monsalve, Carolyn Mulvihill, Auro Majumdar, Gina McAfee, Daniel Nollisch, Anita Lyday, Todd Montgomery, Cindy Potter, Amir Soltani, Steve Cooke, Mike Fuess, Chris Louis, Hannah Visser, Scott Nebesky, File

Summary of Discussion:

1. Welcome and Introductions

- Bryan Gant welcomed attendees and provided a brief overview of the meeting agenda.

2. TAC Meeting #6 Objectives – Bryan Gant

- Bryan reviewed the Level 2A concepts and provided a summary of which concepts have been screened out, and which are still under consideration.
- This meeting will focus on the concepts for tying into US 395, and the two concepts for the Pyramid corridor – one on the existing alignment tying in just south of Disc Drive and one off-alignment tying in south of Sparks Boulevard/Highland Ranch Parkway.

3. Update on Environmental Efforts – Bryan Gant

- There was a Section 106 coordination meeting with NDOT regarding how to approach historic issues.
- A meeting was held with Washoe County Parks, City of Sparks, and RTC to discuss future plans for open space and bike trails in the project limits. The primary concern is a small corner for a trail head near Wild Creek where there is a planned network of trails.
- Sun Valley outreach efforts included a Community Advisory Board (CAB) presentation on April 11, 2009, and an Open House on April 29, 2009 with same information as previously provided at the Spanish Springs Open House held on April 4, 2009. Sun Valley Open House attendees were primarily from Village Green. Going forward, public presentations should be held in both Sparks

and Sun Valley locations. Additional outreach activities in the Sun Valley community will be considered.

4. Pyramid Alignment Options – Chris Angleman

- Pyramid north of Sparks Boulevard is assumed to stay on the existing on-alignment.
- Pyramid south of Sparks Boulevard includes two concepts, one on the existing alignment and one off the existing alignment to the west, behind the Wal-Mart.
- The significant benefits of an off-alignment alternative are there are minimal impacts to the existing access and connectivity along Pyramid Highway.
- For the on-alignment alternative, where Disc Drive meets Pyramid, additional issues include maintaining access and providing connectivity to Disc Drive as an arterial.

5. H6/H7 Concepts & US 395 Interchange Options – David Dodson

- David went over plots of three different H6/H7 system interchange options. All three will have 4(f) issues. The design for the system interchange movements at US 395 is the same for all three of these concepts, with flyovers at US 395 and grade separating structures along McCarran perpetuating local access.
 - **H6/H7 East** – The connector in this concept comes down off the hill through the Village Green/Wedekind neighborhood. One objective with this concept was to keep Wedekind Road open to provide local access through the neighborhood. McCarran would serve as the Pyramid/McCarran Freeway alignment, providing local access on either side of the new freeway with 3-lane frontage roads to maintain access as it is today. Grade separations would be necessary to maintain crossings.
 - **H6/H7 Middle** – With this concept, the connector comes down through the middle of the Wild Creek golf course with ramps that provide access at McCarran. The freeway section would then be the same as described for H6/H7 East. This would probably be the easiest to engineer due to the topography and has the least amount of residential impact.
 - **H6/H7 West** – This alignment comes down the hill immediately to the northwest of the golf course and connects to Sullivan Road for local access.. This concept presents traffic control issues during construction. This alternative has limited impacts to the Wild Creek golf course. Positive aspects of this alternative are that it is close to the urban core and matches the travel patterns for local traffic circulation.
 - All three of the H6/H7 interchange options include the system ramp configuration at US 395. The spacing of the on-ramps to the south is very close to Oddie Boulevard, to the extent that the existing on-ramps at Oddie would have to be removed. The ultimate build-out of the Spaghetti Bowl would present major engineering challenges that have to be considered in evaluating this concept. It is likely that an H6/H7 concept is simply not compatible with the ultimate Spaghetti Bowl due to a system interchange separation of less than 1.3 miles.

6. H17 US 395 Interchange Options – Bryan Gant

- Bryan discussed the connectivity and interchange options for H17. Each of these options includes an interchange in Sun Valley, and then the alignments and tie-in points to US 395 are different concepts.
 - **H17 South** – This concept crosses the Sun Valley area through park land then runs south of TMCC into a fully directional interchange at US 395. It is the only concept with full-speed ramps. This concept involves multiple structural levels at US 395, but they are spread out, so it may not be a true third level. Connection would be provided for the future Sutro/Clear Acre design. The university has an expansion plan in this vicinity that would require coordination if this concept moves forward. There are concerns with mainline grades and resulting cuts between US 395 and Sun Valley Boulevard.
 - **H17 with large loop** – This concept is the same as H17 South, but instead of a fully directional interchange, it would include a loop ramp. The size of the loop required to maintain speeds above 30 mph is very large and too disruptive. The benefit of the loop ramp is the gore spacing along US 395. This option is not being seriously considered at this point.

- **H17 at Parr** – This concept includes fully directional ramps at Parr Boulevard. Movements are shared with on and off movements on Parr.. Feasibility for this concept has not been determined due to challenges with the existing topography, the potential for extreme vertical grades needed within the proposed design, and the probability of large cuts and fills. Because of this, it is not included in the analysis matrix. This concept would also possibly interfere with the large Alturas power lines. It will be further considered in the Level 3 screening analysis.
- **H17 North** – This concept involves a system interchange with semi-directional ramp movements.. The grades on these ramps could be less than 5%. This alternative does not impact property that is developed or generally considered highly developable. There will definitely be conflicts with the Alturas power lines. Existing Dandini would function as it does today and this concept would add stand-alone movements with access to Parr/Dandini.

7. Traffic Analysis – Chris Primus

- There are traffic operational differences between H6/H7 and H17. For the purposes of the traffic modeling, H7 was used as the comparison to H17. Volumes on Pyramid are about the same for H7 & H17, but there is significant difference in traffic loading on the connector. H7 shows 30,000 average daily traffic (ADT) at Vista Boulevard and builds to the west with 120,000 ADT at El Rancho. H17 has 30,000 ADT at Vista Boulevard and builds to 80,000 ADT at Sun Valley Boulevard with the southerly connection to US 395. The volumes are lower when considering an interchange location north of Parr/Dandini. East-west traffic volumes show that H17 better distributes traffic to the road network. H7 puts much more traffic on the McCarran corridor.
- There is a difference in traffic loading depending upon where on US 395 we connect. The more northerly the connection, the travel demand between the north valleys and Pyramid is better served but the dominant movement from Pyramid traveling south on US 395 is not served as well.
- H6/H7 does not provide any additional service to the Sun Valley area. Sun Valley has improved access with H17. H17 is also forward compatible with the proposed West Sun Valley arterial.
- The difference between H6 and H7 is whether there is a connection to Vista Boulevard. H7 connects to Vista Boulevard while H6 does not. From a travel demand perspective, there is a benefit to connecting to Vista Boulevard. That connection relieves the general area and drops many volumes but increases traffic on Vista Boulevard.

8. Environmental Impacts – Kevin McDermott

- Kevin provided handouts for some of the mapped constraints and briefly reviewed the content as the constraints relate to the concepts discussed.
 - **Parks** – H17 does not impact parks but does impact some park owned parcels east of Sun Valley Boulevard. H6/H7 impacts the golf course as well as a planned series of parks and would involve 4(f) issues. These impact differences refer only to the connector component west of Pyramid Highway.
 - **Floodplains** – The area of impact to flood plains is about the same between these concepts.
 - **Relocations** – The concepts have about the same number of relocations required.
 - **Historic Resources** – Historical resources are still unevaluated.
 - **BLM Lands** – Many of the same impacts are encountered with each of the concepts.
 - **Streams** – The linear foot of impact is almost the same between these concepts.

9. Alternative Comparison & Level 2B Screening – Bryan Gant

- Bryan presented a list of positive and negative aspects for each alternative presented today. (see Attachment A)

10. Next Steps – Bryan Gant

- Due to the amount of information presented at this meeting, today's meeting will be considered a preliminary 2B screening. Following a two week period, if no additional feedback has been received, alternatives H6 and H7 will be screened out for Level 3.

11. Q & A

Q: Have the alignments been looked at vertically?

A: We have run some vertical alignments. No verticals have been run on any of the ramps or interchanges at this point. The off-alignment option will require some large cuts into the hillsides, but would be a potentially viable alternative to struggling with trying to maintain access along existing Pyramid Highway. The existing developments in the area would make it difficult to create alternative access as they are self contained with very few existing connections between developments.

Q: Does anyone know what is going to happen with Wild Creek Golf Course? Wasn't there some talk about this being developed?

A: Our understanding is that there is not much public appetite for Wild Creek to be closed and there is significant momentum to maintain it as a public golf course.

Q: Was QUANTM used to determine the potential H6/H7 alignments?

A: QUANTM is primarily a tool to generate potential mainline alignments through undeveloped terrain and would not be as effective through highly constrained areas. It was used to provide alignments between pre-engineered connection points within the area to ensure the least impact to surrounding neighborhoods and avoid Wedekind Road to maintain local access.

Q: If the Oddie ramps went away, what would happen to the traffic in that area?

A: Traffic would have to use alternate freeway access. At this time we do not have the traffic counts for these ramps, but there is good connectivity to allow traffic to move along surface streets to alternate freeway entrances. However, there could be significant resistance to having these ramps removed from area businesses and residents. Future projections on Oddie approaches 30,000 ADT, which is significant, but it is not known what percentage of that is projected to access the freeway from the Oddie ramps.

Q: Who owns the Wild Creek golf course?

A: Washoe County owns Wild Creek, but it is operated by the RSCVA.

Q: Are there any mineral resource or geothermal resource issues with the alternatives that move through open areas?

A: We have not run into any significant issues at this time. Geotechnical evaluation will be more in depth once we have better refined alignment alternatives.

12. Comments

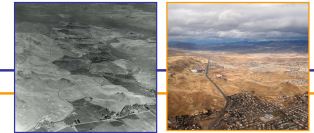
- Before NDOT can agree to eliminating alternatives H6 and H7, we would like the opportunity to review the traffic report. Pending the findings of our review, a meeting to discuss logical termini of the project may also be warranted.

NOTE: The next TAC meeting is scheduled for July 16, 2009, 1:30-3:30 PM at the NDOT District II conference room. Discussion during this meeting is anticipated to focus on narrowing alignment alternatives to allow environmental teams to begin in-depth field surveys.

Meeting adjourned at 3:20 p.m.

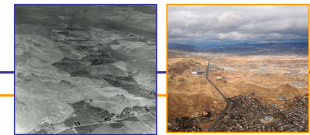
Attachment A
Alternatives Comparison Tables

Alternative Comparison



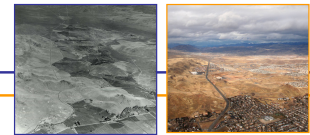
H17 North	
Positive	Negative
<ul style="list-style-type: none">❑ Least developable property impacts❑ Increased interchange spacing with Sutro❑ No relocations at US 395❑ Minimal traffic control❑ Enhances West Sun Valley Connectivity❑ Supports valley-to-valley movement well❑ Adds to east / west roadway network❑ Provides access to Sun Valley	<ul style="list-style-type: none">❑ Large cut / fills❑ Steep roadway grades❑ Increased out of direction travel❑ Potential Alturas power line impacts❑ Visual scarring of hills❑ Residential & commercial impacts in Sun Valley

Alternative Comparison



H17 South	
Positive	Negative
<ul style="list-style-type: none">❑ High speed system ramps❑ Movements match travel patterns❑ Opportunities for local circulation improvements❑ Enhances West Sun Valley connectivity❑ Minimal traffic control❑ Supports valley-to-valley movement well❑ Adds to east / west roadway network❑ Provides access to Sun Valley	<ul style="list-style-type: none">❑ Interchange spacing with Sutro❑ Impacts to University property❑ Large cut / fills❑ Residential & commercial impacts in Sun Valley❑ Residential impacts near Sutro❑ Steep mainline grades

Alternative Comparison



H6 & H7	
Positive	Negative
<ul style="list-style-type: none">❑ Traffic close to urban core❑ Better vertical grades	<ul style="list-style-type: none">❑ Must close Oddie interchange❑ Interchange spacing❑ Visual impacts❑ Commercial impacts❑ Residential impacts❑ Traffic control❑ Ultimate spaghetti bowl conflict❑ Impacts to Wildcreek 4(f)❑ Little future flexibility❑ Not publicly supported❑ Does not serve Sun Valley❑ Does not support valley-to-valley movement well❑ Relies on one corridor for east / west movement

Attachment B
Draft Level 2B Screening Matrix



PYRAMID
HIGHWAY



US 395
CONNECTION

Level 2B Screening Summary (DRAFT)

Screening Element		Design & Traffic Considerations							Environmental Impacts								Screen Out	Carry Forward as Supplementary Alternative	Carry Forward as Stand-Alone Alternative	Comments
Criterion		Interchange Operability	Existing Road Network Cohesion	Interchange Spacing	Ability to Meet Design Criteria	Future Flexibility	Construction Traffic Control	Traffic Demand	Relocations	Environmental Justice	Critical Habitat	Wetlands	Water Resources	Floodplains	Historic Resources	Parks and Open Space				
System Alternatives																				
S-1	No-Action																			
S-4	Pedestrian and Bicycle Improvements																	✓	Carry forward per requirements.	
S-5	TDM Improvements																	✓	Not analyzed in Level 2B. Carry forward as supplemental.	
S-6	TSM Improvements (including Transit Enhancements)																	✓	Not analyzed in Level 2B. Carry forward as supplemental.	
Transit Alternatives																				
T-1	Transit - Bus Rapid Transit																	✓	Not analyzed in Level 2B. Carry forward as supplemental.	
T-2	Transit - Regional Bus																	✓	Not analyzed in Level 2B. Carry forward as supplemental.	
Alignment Alternatives																				
H-6w	Pyramid/McCarran/Wedekind Freeway (west)	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	Screen out due to impacts to McCarran Blvd and Sullivan Rd corridors, inability to accommodate future Spaghetti Bowl, and closure of Oddie interchange.	
H-7w	Pyramid/McCarran/Wedekind to Vista Freeways (west)	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	Screen out due to impacts to McCarran Blvd and Sullivan Rd corridors, inability to accommodate future Spaghetti Bowl, and closure of Oddie interchange.	
H-17s	US-395 to Vista and Pyramid Freeways (south)	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	Carry forward for additional analysis. Concerns with impacts to Sun Valley and University property to be further analyzed.	
H-17n	US-395 to Vista and Pyramid Freeways (north)	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	🕒	Carry forward for additional analysis. Concerns with impacts to Sun Valley, other properties and Alturas power lines to be further analyzed.	
Lane Type Options																				
L-1	General Purpose Lanes on new and/or improved facilities																	✓	Not analyzed in Level 2B. Carry forward for further analysis.	
L-2	HOV Lanes on new and/or improved facilities																	✓	Not analyzed in Level 2B. Carry forward for further analysis.	
L-3	Toll Lanes on new and/or improved facilities																	✓	Not analyzed in Level 2B. Carry forward for further analysis.	
L-4	Reversible Lanes																	✓	Not analyzed in Level 2B. Carry forward for further analysis.	
L-5	HOT Lanes on new and/or improved facilities																	✓	Not analyzed in Level 2B. Carry forward for further analysis.	
L-6	FAIR Lanes on new and/or improved facilities																	✓	Not analyzed in Level 2B. Carry forward for further analysis.	

Legend:



Best



Good



Fair



Poor



Very Poor

DRAFT 5/19/09

Meeting Minutes

Project: Pyramid Highway/US 395 Connection

Purpose: Technical Advisory Committee Meeting

Date Held: July 16, 2009

Location: NDOT District II
310 Galletti Way, Sparks NV

Attendees:	FHWA:	Del Abdalla, Hannah Visser
	RTC:	Doug Maloy, Tom Greco, Howard Riedl, Bill Vann
	NDOT:	Daniel Nollsch, Todd Montgomery, Chris Young
	City of Reno:	John Toth
	City of Sparks:	Jim Rundle
	Washoe County:	Clara Lawson
	Reno/Sparks Indian Colony:	Scott Nebesky
	Jacobs:	Steve Oxoby, Bryan Gant, Jim Clarke
	CH2M HILL:	Cindy Potter, David Dodson, Mark Gallegos

Copies: Attendees, Sandra Monsalve, Carolyn Mulvihill, Auro Majumdar, Gina McAfee, Daniel Nollsch, Anita Lyday, Leslie Regos, Amir Soltani, Steve Cooke, Mike Fuess, Chris Louis, Hannah Visser, Scott Nebesky, Neil Krutz, Jo Ann Hufnagle, Chris Primus, Mike Lawson, File

Summary of Discussion:

1. Welcome and Introductions

- Bryan Gant welcomed attendees and provided a brief overview of the meeting agenda.

2. TAC Meeting #8 Objectives – Bryan Gant

- Primary objective of the meeting is to obtain input regarding the environmental right-of-entry footprint prior to sending out right-of-entry letters for environmental field surveys.

3. Update on Environmental Efforts – Jim Clarke

- The study team has met with Washoe County Parks staff regarding 4(f) properties. In particular, Wildcreek Golf Course and a parcel just east of Sun Valley Boulevard were discussed.
- The Sun Valley parcel is currently vacant and not currently being used. The planned use is for a rim trail that goes through this area, potentially as a trailhead. Washoe County Parks will be walking the property to determine if this is an appropriate area for a trailhead and determine what areas of the parcel will be utilized in future parks projects.
- Section 106. The team is still working on getting Section 106 consulting parties coordinated. Invitations have been sent out to potential consulting parties and follow-up calls have been made. To-date, there has not been much response.
- Right-of-entry process for the environmental field surveys will begin once the environmental footprint has been determined. It is anticipated that the field surveys will begin sometime in late Summer to early Fall.

4. Environmental Right-of-Entry Footprint Discussion – Bryan Gant & David Dodson

- Attendees reviewed aerial mapping illustrating potential facility location(s) and the study team's initial/conservative environmental field survey footprint.
- Initial footprint has been set at 250' from center line for the mainline and 1000' from center line at potential interchange locations. A conservative footprint has been set initially and is anticipated to become smaller and more refined as the process continues. A conservative approach was taken as it would be easier to decrease the footprint as the study progresses than it would be to expand it at a later time.
- Assumption: From Sparks Boulevard to the north end of the project limits, facilities will be maintained along existing alignment.
- NDOT policy for interchanges is 1000' total (500' from center line). The study team is taking a more conservative approach by doubling this policy requirement. There is no NDOT policy requirement for the mainline.
- Recommendation was made to shift the mainline east extending from La Posada to Calle de la Plata to take advantage of the undeveloped land and minimize potential impacts to the neighborhood to the north of Pyramid Highway.
- Footprint for possible interchange at Dolores should be shifted to be centered at Dolores (need to confirm map labeling for Dolores is accurate).
- Note was made the number of interchanges shown is only to ensure that the environmental field work encompasses those areas that could potentially serve as an interchange site. There would not necessarily be interchanges located at each of these sites.
- It was noted that the connector would be traversing through potential Environmental Justice areas as it passes through Sun Valley. This will be looked at more closely once potential corridors are narrowed down. This area will likely involve small community group meetings in the outreach effort.
- Within Sun Valley, it is still uncertain whether an interchange should be placed at Sun Valley Boulevard, the future West Sun Valley arterial, or both.
- Note was made that the Red Hill area east of US 395 is deed restricted and contains various endangered species, so the connector cannot pass through this area.
- It was recommended that the Study Team complete the traffic operations study for the connection to US 395 to determine the most feasible alignment prior to beginning the environmental field reviews to reduce the environmental footprint required. It was noted that this was the team's intent, however, they have not been able to eliminate any of the current alternatives as they perform at relatively the same level with the initial traffic analysis that has been performed.
- It was noted that the environmental footprint maps would be posted to the project website. There was some concern that this could cause unnecessary public confusion. RTC will be looking into this further to determine if this will be done.

5. Next Steps – Bryan Gant

- There is an issue regarding the RTC travel demand model brought forward by other agencies which could potentially impact the study. The Project Team will keep the TAC updated if any significant impact is identified. At this time, the study is moving forward as scheduled while the respective agencies work through this issue.
- The Project Team would like to put together a Project Steering Committee. This would be a multi-agency committee involving individuals at the Director level. The team requested input on who the appropriate person(s) would be from the various agencies would be. The meetings would likely be scheduled for late summer/early fall and then again prior to the DEIS being completed. Initial recommended contacts for this effort are as follows:
 - Sparks – TBD after contacting Neil Krutz and/or John Ericson
 - City of Reno – Neil Mann, John Hester
 - Washoe County – Adrian Freud, Dan St. John
 - NDOT – Susan Martinovich
 - FHWA – Sue Klekar, Paul Snyder

- o RTC – Derek Morse

6. **Q & A**

Q: Has the study team been considering the frontage roads along existing Pyramid Highway in the “on alignment” design that has been proposed in the RTP and does the environmental footprint being considered accommodate these frontage roads?

A: Yes. The frontage roads are being considered and the environmental footprint will be able to accommodate any necessary frontage road facilities along existing Pyramid Highway.

Q: How old is the aerial mapping being used?

A: The maps are based on aerials obtained from Washoe County and were last updated in 2006, so we would need to keep this in mind when looking at the maps as there has been some development since these aerials were obtained.

Q: How would some of these potential changes to access affect emergency vehicle access and response times?

A: This would be something that would be looked at more closely as the study moves forward.

Q: What was the anticipated terminus for the future West Sun Valley arterial?

A: The terminus was identified as Parr Boulevard/Dandini/US 395 in the RTP. This would have been with the assumption that a connector did not exist.

Q: Can you send the environmental footprint maps so that we can look at them a little more closely and forward any additional recommendations?

A: We will integrate the changes that were discussed today and send out the updated maps for additional review.

7. **Comments**

- It was noted that the environmental footprint maps would be posted to the project website. There was some concern raised that this could cause unnecessary public confusion. The RTC will be looking into this further to determine if this will be done.

NOTE: The next TAC meeting is scheduled for September 17, 2009, 1:30-3:30 PM at the NDOT District II conference room.

Meeting adjourned at 3:00 p.m.

Attachment A Attendance Roster

7/16/09

PYRAMID EIS TAC #8

<u>NAME</u>	<u>REPRESENTING</u>	<u>EMAIL</u>
BRYAN GANT	JACOBS	BRYAN.GANT@JACOBS
MARK GALLEGOS	CH2M HILL	MARK.GALLEGOS@CH2M.COM
STEVE OXOBY	JACOBS	STEVE.OXOBY@JACOBS.COM
David Dodson	ORMHILL	david.dodson@ch2m.com
Cindy Potter	CH2M HILL	cpotter@ch2m.com
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Jim Clarke	JACOBS	Jim.clarke@jacobs
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Daniel Nollsch	NDOT	MNollsch@dot.state.nv.us
Chris Young	NDOT	cyoung@dot.state.nv.us
HANNAH VISSER	FHWA	hannah.visser@dot.gov
Todd Montgomery	NDOT	tmontgomery@dot.state.nv.us
HOWARD RIESL	REL	hriessl@rtcwashoe.com
Tom Greco	RTC	Tgreco@rtcwashoe.com
Clara Lawson	Washoe County	clawson@washoecounty.us
DAVE MAJOR	RTC	dmajor@rtcwashoe.com
JIM RUNDLE	CITY OF SPARKS	jrunde@cityofsparks.us
BILL VANN	RTC	bvann@rtcwashoe.com

Meeting Minutes

Project: Pyramid Highway/US 395 Connection

Purpose: Technical Advisory Committee Meeting

Date Held: October 15, 2009

Location: RTC Headquarters
2050 Villanova Drive, Reno, NV

Attendees:

FHWA:	Del Abdalla
RTC:	Doug Maloy, Tom Greco, Howard Riedl, Bill Vann, Blaine Peterson, Lee Gibson
NDOT:	Chris Young, Randy Travis, Mike Lawson
City of Reno:	John Toth
City of Sparks:	Jim Rundle, Jon Ericson
Washoe County:	Clara Lawson
Reno/Sparks Indian Colony:	Scott Nebesky
Jacobs:	Steve Oxoby, Bryan Gant, Chris Primus, Sara Ciasto, Chris Martinovich
CH2M HILL:	Cindy Potter, Leslie Regos, David Dodson, Mark Gallegos

Copies: Attendees, Todd Montgomery, Sandra Monsalve, Carolyn Mulvihill, Auro Majumdar, Gina McAfee, Daniel Nollsch, Anita Lyday, Amir Soltani, Steve Cooke, Mike Fuess, Chris Louis, Hannah Visser, Neil Krutz, Jo Ann Hufnagle, Andrew Soderborg, Jim Clarke, Julie Masterpool, Chris Angleman, File

Overall Meeting Outcomes:

- 1. Recommendation: Drop the Pyramid Highway without a frontage road concept from Disc Drive to Sparks Boulevard from further study.**
- 2. Recommendation: Drop the northern alignment crossing through Sun Valley over to US 395.**
- 3. Recommendation: Drop the north of Parr US 395 Interchange concept from further study – only if the at-Parr Interchange concept can accommodate access to and from Parr/Dandini to the Connector.**

Summary of Discussion:

1. Welcome and Introductions – Leslie Regos

- Leslie Regos welcomed attendees and provided a brief overview of the meeting agenda, goals and objectives.
- The goal of the meeting is to review design concepts and make a recommendation on which concepts will be carried forward for further engineering and environmental analysis.
- Attendees were provided a draft “Challenges & Opportunities” worksheet for review. This is provided as a working summary of discussion items the Project Team has developed as they develop and analyze concepts.

2. Study Process Review and Progress Update – Bryan Gant

- Bryan Gant provided an overview of the study process and progress to-date. At this point, the Project Team is hoping to further pare down the alternatives carried forward to reduce the environmental footprint. The Team does not want to remove any alternatives that might prove to be effective in meeting the study purpose and need.

3. Design Concept Overview

- Three concepts were developed for the Pyramid Freeway south of Sparks Boulevard.

Pyramid On-alignment *with* frontage roads - David Dodson

- The primary challenge for the on-alignment concept is to maintain existing local access to adjacent properties while converting Pyramid to a controlled access freeway. A frontage road concept would aid in perpetuating existing local access.
- A concept of how a frontage road facility would function between Disc Drive and Los Altos was provided. It was noted that ramp and interchange configurations shown are provided as a point of reference and are anticipated to evolve as more detailed analysis and engineering is performed.
- Similar discussion occurred regarding a frontage road on the west side of Pyramid between the Summit Church and the WalMart entrance. As shown access would be through the WalMart parking lot, alternatively, there may be an opportunity to utilize the existing subdivision access.
- On-alignment concepts provide continuity of commercial property line-of-site view as currently exists within the corridor.
- On-alignment improvements would have significant challenges in maintaining all accesses during construction that are currently provided.
- Estimated property impacts – 115 (this includes both potential relocations as well as partial right-of-way acquisitions).

Pyramid On-alignment *without* frontage roads - David Dodson

- This concept would require rerouting of local roads to the west and east of Pyramid between Disc Drive and Golden View in order to maintain local access, changing the location of the existing access points and thus creating impacts on adjacent neighborhood streets including increasing traffic in these areas.
- Possible rerouting options were reviewed with attendees.
- On-alignment improvements would have significant challenges in maintaining access to commercial and residential properties during construction.
- Estimated property impacts – 105 (this includes both potential relocations as well as partial right-of-way acquisitions). It should be noted that the rerouting of local streets off of the alignment to perpetuate local access could result in additional impacts and property acquisitions.

Pyramid Off-alignment - David Dodson

- This concept would involve the construction of a new roadway along the hillside to the west of the existing Pyramid Highway, behind and above Wal-Mart and below the ridgeline. This alignment would reconnect with existing Pyramid south of Sparks Boulevard and north of Golden View.
- This concept would allow existing Pyramid Highway to serve local access as it does currently without disruptions to residential and commercial properties on Pyramid between Disc Drive and Sparks Boulevard.
- The off-alignment concept may affect the driver's visibility and access to commercial properties between Disc Drive and Sparks Boulevard, which may raise concerns for businesses within the corridor, however, there was discussion that the facility would serve primarily local/commuter

traffic. Connectivity to existing Pyramid would perpetuate access to commercial and residential properties on Pyramid.

- This option would require significant cut and fill, some of which might be mitigated with retaining walls to limit the footprint. Additional engineering would be required to determine the optimal alignment and to what extent cut and fill areas could be mitigated.
- The off-alignment concept could be constructed with minimal traffic disruption along the existing Pyramid segment.
- An overview of initial conceptual off-alignment access from the Pyramid Corridor was provided. More detailed traffic analysis will further delineate the optimal access points.
- A new interchange would be provided from Disc Drive to access the off alignment concept to tie into the east/west connector.

Pyramid Highway North of Sparks Boulevard - David Dodson

- A brief discussion of the conceptual engineering performed on Pyramid north of Sparks Boulevard was provided.
- Interchange locations and facility type transition points are dependent on more detailed traffic analysis and will evolve as the study continues.

Vista Boulevard Connection - Bryan Gant

- An overview of a potential connection from the US 395 connector to Vista Boulevard was provided.
- 4(f) property constraints have changed the team's focus to a potential connection using Disc Drive. Based on preliminary traffic analysis, Disc would need to be improved from a 4-lane to a 6-lane facility between the intersections with Pyramid and Sparks Boulevard, transitioning to a 4-lane section from Sparks Boulevard to Vista Boulevard.
- Use of Disc Drive as the connector east of Pyramid would likely result in changes in access. There are several commercial and residential access points along Disc that would need to be changed to a right-in/right-out. Restricted access on this corridor would allow limited opportunities for left turn movements at these access points.
- The section between Sparks Boulevard and Vista Boulevard poses some potential issues as the traffic model indicates that traffic movement from Wingfield Springs seems to prefer crossing from Vista to Sparks in route to I-80 as Sparks Boulevard provides more direct access. This could increase volumes at these intersections during peak hours significantly and affect circulation. An additional connection from Vista to Sparks Boulevard near Satellite Drive and the power line corridor could be considered.

Connector Concepts at Sun Valley - Sara Ciasto

- US 395 connector concepts through Sun Valley were discussed. Three options, northern, middle, and southern routes across Sun Valley Boulevard were presented.
- The southern route would traverse through open land and cross Sun Valley Boulevard just north of El Rancho. This route would require approximately 6% grades coming into and out of Sun Valley due to the topography in the area. Proximity to Dandini and El Rancho intersections would create spacing challenges for traffic operations. Approximately 35 properties would be impacted.
- The middle route would traverse through Sun Valley in the area of Rampion Way. Mainline grades would still be in the 6% range due to the topography. Based on initial engineering, intersection spacing works better at this location than at the southern crossing. Approximately 35 properties would be impacted.
- The northern alignment would come into Sun Valley in the area of First Avenue. Though this alignment does help somewhat with the mainline grade, we would still be looking at approximately 4.5% to 5% grades with this alignment. This option would create relatively severe neighborhood impacts as compared to the southern and middle alignments with a potential of 60 to 65 residential impacts, assuming tight diamond configurations (approximately double the number of impacts as compared to southern and middle alignments).
- A brief overview of potential interchange concepts on the Sun Valley alignments was presented. Due to the grades, the on-ramp lengths for each of the potential alignment/interchange options would be significant in the westbound direction. This results in ramp spacing problems with the US 395 interchange ramps. Interchange configurations will evolve as the study progresses.

- Accommodating a connection to the future West Sun Valley Arterial will be challenging as this exacerbates the ramp grade and resulting ramp spacing issue with US 395 seen at Sun Valley Boulevard. However, a West Sun Valley Arterial connection and potential termination location is being looked at as the alternatives are further evaluated.

Connector Concepts at US 395 - Sara Ciasto

- Three connection points at US 395 were reviewed, north of Parr, at-Parr, and south of Parr. Attendees were stepped through the movements for each concept. Each of these concepts would involve significant cut/fill due to topography.
- The north of Parr concept would allow full access Parr/Dandini eastbound to the connector. There are no structures or residences that would be impacted. There may be utility impacts with the Alturas power lines. DRI is considering industrial/commercial development north of Dandini and has begun work on a strategic master plan for the property. This option does have a very unusual interchange configuration and would require large cuts/fills along the Dandini Hills as well as realignment of existing Dandini and Spectrum Drive.
- The at-Parr concept is a folded diamond interchange laid over existing Parr Boulevard. There would be no access from Parr Boulevard to the connector in either direction. Existing US 395 ramps at Parr/Dandini would remain with some modification. This option also has very large cut/fills along the Dandini Hills and would require realignment of Dandini.
- The south of Parr alignment would run south of TMCC/DRI. This alignment would impact some residential properties as well as impact DRI's expansion plans. The proximity to Clear Acre and Sutro is a concern with this concept. She noted that this southern location option does not work in conjunction with the southern route through Sun Valley due to grade constraints. Full access to/from Parr/Dandini and the connector would be provided. This option does provide the nearest proximity to the Reno urban core and points south.

Following the presentation of each concept, the TAC had an opportunity to provide comments, ask questions, and suggest opinions. These discussions are recorded at the end of this meeting summary as Items #6 and #7.

4. Summary Recommendations – Leslie Regos

- The TAC recommended that the Pyramid off-alignment alternative be carried forward for additional analysis. It was suggested that further consideration of the need for Los Altos to connect with the off-alignment facility should be part of the future analysis.
- The TAC recommended that the Pyramid on-alignment with frontage roads (Disc Drive to Sparks Boulevard) be carried forward for additional analysis.
- The TAC recommended that the Pyramid on-alignment without frontage roads (Disc Drive to Sparks Boulevard) alternative be dropped from further evaluation due to access issues, the need to reroute the local street network to perpetuate local access, and the impacts associated with any access changes.
- Since the various options at the north end of Pyramid Highway (north of Sparks Boulevard) do not impact the environmental footprint, all of the options presented will be carried forward. Detailed traffic analysis will aid in determining the appropriate facility type transition point and interchange types and locations as the study progresses.
- The TAC recommended that the northern alignment through Sun Valley be dropped as there are no significant benefits with this alignment to off-set the doubling of relocation impacts as compared to the more southerly options.
- The TAC recommended that the middle alignment in the area of Rampion Way through Sun Valley be carried forward for additional analysis.
- The southern alignment through Sun Valley will have some spacing issues with existing intersections, making it less desirable from an engineering and operations standpoint. The TAC recommended that this option be carried forward, however, it will need to be eliminated if the southern US 395 connection is selected as a preferred alternative due to ramp lengths and grades. Additional public input will be sought to see if it is possible that Sun Valley residents may opt for the southern alignment with limited access eastbound on the connector only.
- The TAC recommended that the US 395 Connection at Parr be carried forward. The project team will work on providing access from existing Parr/Dandini to the connector in each travel direction.

- The TAC recommended that the south of Parr alternative continue to be studied as a possible option. The Team will reconsider the connector and/or US 395 access to the future proposed Sutro extension to address concerns regarding ramp weaving.
- The TAC recommended the north of Parr alternative be dropped contingent upon the ability to provide access from Parr Boulevard to the connector with the at-Parr alternative. If this access is found to be infeasible, the north of Parr alignment will be brought back for further analysis.

5. Next Steps – Bryan Gant

- There will be a Project Steering Team (PST) meeting scheduled with representatives from Cities of Reno and Sparks, Washoe County, NDOT, and RTC. This meeting will be used to determine if any of the concepts are fatally flawed or might otherwise have underlying issues that would preclude the support of policy-level decision makers.
- Planned outreach activity includes Citizens Advisory Board and Neighborhood Advisory Board presentations, a design workshop with Sun Valley residents, and individual meetings with major landowners and developers within the area to review design concepts. Attendees were provided with a list of planned outreach activity and were asked to forward any additional activity they feel should be considered.
- Environmental field work is planned to begin in November 2009.
- Currently, the team anticipates having a draft EIS by Spring/Summer 2010. The critical path item at this time is obtaining interagency consensus on the traffic model to be used in evaluating the remaining alternatives.
- TAC members will be provided with an FTP link where they can access the conceptual drawings used during today's meeting for further review.

6. Q & A

Q: Do any of the on-alignment concepts along Pyramid require the construction of soundwalls?

A: That level of analysis has not yet been performed. This will be addressed as part of the noise studies for the EIS which will require more detailed lane layouts and engineering.

Q: Is there any difference in the traffic projections between the Pyramid on- and off-alignment alternatives?

A: We are still working through the details of the traffic methodology. With the off-alignment, you retain the capacity of existing Pyramid as well as add additional capacity with the new off-alignment facility, providing quite a bit of capacity through the corridor. The on-alignment options, both with and without frontage roads, would need to serve all of the Pyramid traffic demand in this area..

Q: Has any thought been given to constructability issues for the Pyramid on- and off-alignment alternatives?

A: Both the on- and off-alignment concepts will create some constructability issues. The off-alignment concept will require significant cut/fill, drainage considerations and soils will also be a major factor due to the clays within the area, but traffic disruptions would be minimal during construction. The on-alignment poses the difficulty maintaining property access and traffic flow on an extremely busy roadway during construction.

Q: Are there any differences in the constructability of the three potential alignments through Sun Valley?

A: We believe that the constructability challenges of the three Sun Valley alignments are very similar. It is the project team's opinion that the bigger differentiator would be neighborhood impacts.

Q: What is the system-to-system ramp design speed at US 395?

A: Currently, conceptual designs are based on 50 mph ramp speeds for the system-to-system interchanges.

Q: Is there access from Parr Boulevard to the new connector included within the at-Parr alternative?

A: No, not with the current design.. However, the model has shown demand for this movement. The Team will take another look at the design to see if this access can be provided.

Q: Could we consider providing limited access (eastbound only) or eliminating access completely to make the southern Sun Valley route a more viable option considering the proximity to El Rancho and Dandini intersections?

A: This could be considered, however, we would need to be certain that there is consensus within the Sun Valley community that limiting access to a facility running through their neighborhoods would be an acceptable option. The community is not likely to support a facility from which they derive little or no benefit.

Q: Since the north of Parr alternative at US 395 pushes the alignment closer to North Virginia, is it possible to create an access to North Virginia via a frontage road?

A: This could be looked at, but the distance from the north of Parr interchange to North Virginia may be too far out of direction for this option to make sense from a traffic perspective.

Q: Will sound walls be required for any of the alternatives presented?

A: Baseline noise analysis will be performed during environmental field studies. The potential need for soundwalls will not be known until further engineering of roadway/ramp locations and geometry is completed.

Q: How limited will the view of commercial access be with the off-alignment?

A: The larger high profile signage will be visible, but some of the smaller commercial/retail establishments will likely lose visibility to passing traffic from the off alignment alternative due to elevation and barrier rails. *(It was noted that most traffic within the Pyramid corridor is local with the majority of people traveling the corridor being familiar with the local commercial/retail establishments)*

7. Comments

Pyramid On/Off-alignment

I have a preference for the off-alignment concept with some reconsideration of access from existing Pyramid. I like that Pyramid continues to provide access to commercial centers as it does in its current configuration. I am concerned that the on-alignment could potentially cause additional congestion within the frontage roads and that the on-alignment could cause budget problems with the number of potential right-of-way acquisitions that would be required.

I think the off-alignment has two big advantages; 1. You have the existing capacity of the surface street in addition to the capacity added by the new facility, 2. I think if you try to widen the surface street to a freeway the disruption caused will far exceed the disruption you would see with the off-alignment, potentially causing major issues with drivers that use the facility. I think it would create a huge cost factor trying to maintain traffic on existing Pyramid while widening to convert to a freeway. I think in the long run it will be less expensive and less disruptive to go with the off-alignment.

The off-alignment is a definite plus when you think about trying to maintain traffic during construction. It might be more expensive to build on the hillside, but you're not trying to maintain traffic during construction on the existing alignment. Going with the off-alignment also provides double the capacity by having the new alignment in conjunction with existing Pyramid. If we end up going with an on-alignment option, I think we are better off going with the frontage roads to maintain local access.

I like the off-alignment though I think there will definitely be some constructability issues up on the hillside. I think you need to provide a full access system interchange off of Disc Drive.

I see advantages to both the on- and off-alignment concepts, but I am leaning toward the off-alignment based on our conversation today.

It should be noted that there will be some visual impact with the off-alignment due to cuts into the hillside that will be highly visible from the valley.

I am leaning toward the off-alignment option. The weaving movements required with the on-alignment could create a lot of confusion and make for circuitous movements with the frontage roads.

I think there are clearly advantages to both the on- and off-alignment options. The advantage to the off-alignment is that you have a lot of through traffic. If Winnemucca Ranch is developed, having the off-alignment and additional capacity will be a significant advantage. I think you need to have a strong understanding of where the new employment and residential centers will be to make sure you have a good handle on origins and destinations in order to make a good decision on which option will best serve the needs within the corridor.

I am leaning toward the off-alignment. The biggest problem with an on-alignment option is that you are constraining your ability to accommodate future growth within the corridor. Constructability may be an issue with the off-alignment, but at least it allows us the opportunity to be proactive in planning for future growth in the area.

I like the off-alignment as it has fewer impacts to existing development within the corridor.

Consideration should be given to Disc as a high-speed interchange with the off-alignment alternative.

The off-alignment alternative would provide better access to the planned county courthouse at the southeast corner of Disc Drive.

The off-alignment alternative has the advantage of adding additional capacity and less disruption to traffic during construction which will be a significant driver for commercial properties and those who commute within the corridor on a daily basis.

Commercial access is primarily south of Los Altos. Consider access to off-alignment within this area.

It was noted that the circuitous route(s) to access the off-alignment alternative from existing Pyramid may cause more traffic to choose to use existing Pyramid rather than the new alignment. This should be considered in determining access points if the off-alignment option were selected as a preferred alternative.

Pyramid North of Sparks Boulevard

The preference of the Indian Colony would be to maintain as much access as possible along Pyramid for our property at the southeast corner of Eagle Canyon.

Might consider moving the interchange from Dolores to David James. This might be better for the Lazy 8 development. The site plan for the Lazy 8 is completed and available for review.

I think it would be good to determine where the freeway would need to end based on traffic volumes and this will aid in answering questions regarding interchange locations.

Not sure if a loop ramp at La Posada is going to work. You should contact Neil Krutz/City of Sparks to get a plan for the roadway network in this area.

Eagle Canyon/La Posada intersection is a large generator for traffic so you will need to consider an interchange of some type there.

There is a potential for a future I-80 connector to come down La Posada from Patrick as identified in the 2040 plan. This will need to be considered when determining interchange type and location in this area.

If one-way frontage roads are used in this area, perhaps addition of Texas u-turns could be considered to mitigate circuitous movements.

It was noted that determination of where the freeway will need to end will be determined by additional traffic analysis.

Vista Connection

From a long-term planning perspective, there is a potential that the Wingfield Springs movement could change with the development of Pioneer Meadows and Kiley Ranch business parks. This would alleviate some of the pressure at Disc between Vista and Sparks Boulevards.

Connector Concepts through Sun Valley

From a mobility perspective, I think the alignment through Sun Valley would be dependent heavily on origins and destinations.

I think the middle alignment works better in relation to the surrounding existing road networks.

I think the alignment further south is likely the best option for the potential traffic movement in the area.

With the doubling of residential impacts related to the northern alignment, I would recommend dropping the northern alignment unless there is some significant advantage provided by keeping it as an option.

The residents in Sun Valley really do not want anything more done with Sun Valley Boulevard until the proposed western arterial is completed. We might want to look at not having an interchange at Sun Valley Boulevard and instead look at placing the interchange at the western arterial.

The movement from Sun Valley Boulevard south to El Rancho in the AM peak and then in reverse in the PM peak is substantial. The southern alignment with an interchange so close to El Rancho could result in significant traffic delays in this area. For this reason, I think the middle alignment is the best option. The northern alignment will not only impact homes, but there is also a school within that area.

It should be noted that any option through Sun Valley will segment the community and also have significant visual impact since it will involve elevated structures.

Connector Concepts at US 395

I think that the at-Parr and southern alignments fit better with the Purpose and Need.

I'd like to see traffic needs on Parr west of US 395 from the connector better addressed.

I'd like to see higher design speeds for the system-to-system interchanges.

I would eliminate the northern alignment from further consideration.

It is better to overlay the interchange over the existing Parr ramps which would limit impacts.

The at-Parr option would be a stronger option if access from Parr to the connector in both directions could be worked-out.

I prefer the southern option from a mobility standpoint. But the option could add some confusion at the Clear Acre/McCarran interchange area.

Perhaps we could eliminate access to the proposed future Sutro extension to eliminate some of the weaving movements generated by the south of Parr option.

I think the weaving movements on the southern alternative would create a great deal of confusion and safety issues.

It was noted that the southern alignment through Sun Valley would not work with the southern interchange at US 395 due to grades and westbound ramp lengths.

The south of Parr option seems too complex with too many ramp weaving movements.

The at-Parr option seems to be a better option from a freeway operations standpoint and maybe worth the trade-off without providing access to/from Parr Boulevard.

The at-Parr option would not be a good idea if access from Parr to Dandini is cut off.

The south of Parr alternative may have a fatal flaw as it may interfere with DRI's expansion plans.





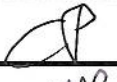


NOTE: The next TAC meeting is scheduled for January 21, 2009, 1:30-3:30 PM at the NDOT District II conference room.

Meeting adjourned at 2:00 p.m.

Attachment A Attendance Roster

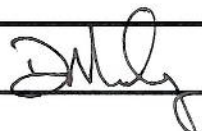
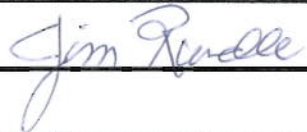
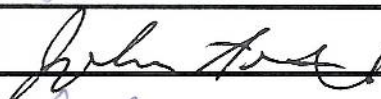


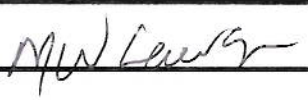
Date: 10/15/09

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Date: 10/15/09

TAC MEETING ROSTER

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Meeting Minutes

Project: Pyramid Highway/US 395 Connection

Purpose: Technical Advisory Committee Meeting

Date Held: January 21, 2010

Location: NDOT District II Conference Room
310 Galletti Way, Sparks NV

Attendees:

FHWA:	Hannah Visser, Andrew Soderborg
RTC:	Doug Maloy, Tom Greco, Chris Louis, Scott Gibson
NDOT:	Daniel Nollisch, Randy Travis, Phil Slagel, Amir Soltani
City of Reno:	John Toth
City of Sparks:	Jim Rundle
Washoe County:	Clara Lawson
BLM:	JoAnn Hufnagle
Reno/Sparks Indian Colony:	Scott Nebesky
Jacobs:	Bryan Gant, Jim Clarke, Chris Primus, Sara Ciasto, Chris Martinovich, John Karachepone, Mike McCarley
CH2M HILL:	Cindy Potter, David Dodson, Mark Gallegos

Copies: Attendees, File, Del Abdalla, Anita Lyday, Auro Majumdar, Bill Glaser, Bill Vann, Blaine Peterson, Carolyn Mulvihill, Gina McAfee, Howard Riedl, John Toth, Julie Masterpool, Mike Fuess, Mike Lawson, Neil Krutz, Sandra Monsalve, Steve Cooke, Steve Oxoby, Lee Gibson

Summary of Discussion:

1. Welcome and Introductions – Bryan Gant

- Bryan Gant welcomed attendees, provided introductions, and gave a brief overview of the meeting agenda, goals and objectives. A Draft Level 3 Alternatives map was provided for review.
- The purpose of the meeting is to provide a status update, review initial traffic forecast results for alternatives comparison, review of concept refinements that have been performed, and provide an environmental outreach update.

2. Study Process Review, Progress Update, and Alts Elimination Recap – Bryan Gant

- Bryan Gant provided an overview of the study process and progress to-date.
- At north end of study area, a determination needs to be made regarding at what point to transition from freeway facility to either expressway or arterial facility.
- Within the area between Delores and Eagle Canyon, the team is continuing to study various interchange types and how they will work together operationally.
- In the area south of Sparks Boulevard the two alternatives which are being studied are the off-alignment (running along the west side of the valley above the developments to the west of Pyramid) and the on-alignment with frontage roads to assist in maintaining local access (the on-alignment without frontage roads alternative was screened out at the last TAC meeting).
- With regard to the east-west connection, the focus has been primarily within the Disc Drive corridor; however, an extension through the Wedekind property has not yet been ruled out.

- Within the Sun Valley area, the team is still analyzing interchange operations at Sun Valley Boulevard or in the area of a potential future West Sun Valley arterial to determine which would best meet the needs of Sun Valley traffic.
- At the October 2009 TAC meeting, there was consensus for the elimination of the north-of-Parr interchange alternative at US 395 contingent upon whether Parr Boulevard/Dandini Boulevard access to the connector could be provided within the at-Parr alternative. If this access could be provided, the consensus was to move forward with additional study of the at-Parr and south-of-Parr alternatives.

3. Traffic demand levels – Chris Primus

- Chris presented comparison travel demand levels within various segments along the alternatives being studied.
- The alternatives have been modeled by RTC with the regional travel demand model. Five different “mix and match” model runs were used to model the various segments.
- The model shows the amount of traffic attracted to the facility when it is improved; and the comparative results demonstrate that a different amount of traffic can result depending on the design of the improvements.
- Chris explained a graphic depicting total daily volume along the Pyramid and US 395 connector corridors for the five model runs:
 - Future daily volume at Calle de la Plata is about 40,000 vehicles per day.
 - South of Eagle Canyon, more volume is attracted when it is designed as a freeway in contrast to an arterial.
 - If there is freeway access at Dolores, more volume uses the new facility. Otherwise local traffic uses arterials from the Lazy 5 interchange to access the Dolores area.
 - North of Sparks, future daily volume is about 110,000 per day.
 - With the On-alignment, the freeway (and frontage roads) carries almost 140,000 vehicles per day. In contrast, with an off-alignment, the freeway carries about 100,000 vehicles per day—and about 40,000 vehicles per day are on the existing Pyramid facility.
 - The location of the interchange with US 395 influences the amount of traffic on the new connector. The new facility carries more traffic with the South of Parr interchange location than the At-Parr interchange location. This is because the South of Parr location provides a more direct route to the Reno core for Pyramid corridor traffic than the At-Parr location.

4. Level of Service by Segment – John Karachepone

- John provided a brief overview of the process for converting travel demand numbers to level of service measurements which can be used to determine the types of facilities that would serve the demand at an acceptable level of service during peak travel times.
- The travel demand model output is processed through nationally accepted NCHRP 255 methodologies to develop design hour traffic volumes for traffic operations analysis and traffic simulation study.
- Traffic operations analysis and traffic simulation allows the design team to answer questions related to alternative designs at specific locations within the study corridor, and to fine-tune the design at an appropriate level to achieve the operational and safety goals of the project.
- We have worked closely with NDOT staff in developing the design hour traffic volumes, and these travel forecasts are now approved by NDOT as suitable for alternative evaluations for Pyramid Highway/US 395 Connection.

5. Northern Terminus Facility Types and Los Altos Connection Options– David Dodson

- David provided an overview of the alternatives being evaluated for a northern freeway facility terminus/transition to expressway or arterial facility.
- Option 1: Extension of high order, controlled access facility north of Eagle Canyon and Sky Ranch with a terminus at a signalized intersection at Egyptian Drive. This would include an interchange at Eagle Canyon.
- Option 2: This option would extend the high order, controlled access facility north of Egyptian Drive with an interchange at Egyptian Drive. The terminus would be a signalized intersection at Calle de la Plata.

- Option 3: This option would terminate the high order, controlled access facility north of the Sparks Boulevard/Lazy 5 Parkway split diamond location and transition to a signalized arterial with signals at Dolores, Robert Banks, and Eagle Canyon.
- Traffic analysis thus far indicates that Option 3 would not satisfy travel demand. A higher order facility would be needed up to Eagle Canyon to satisfy projected travel demand. Traffic analysis also indicates that the high order facility does not need to be extended beyond Egyptian Drive. Analysis indicates that demand is met with an interchange at Eagle Canyon with transition to arterial and signalized intersection at Egyptian Drive.
- The study team is still in the process of analyzing interchange types to determine which would best serve projected demand at the various locations while limiting impacts to existing and planned development in the area.
- The team is still analyzing the on- and off-alignments within the area between Disc Drive and Sparks Boulevard. To address concerns raised at the last TAC meeting, the team is analyzing the potential need for providing more direct access from Los Altos to the mainline within the off-alignment option. Further traffic modeling will aid in making this determination. A direct connection from Los Altos to an off-alignment mainline would likely result in significant impacts due to existing development. This access may be able to be addressed with the interchange layout at Disc Drive and the off-alignment alternative.

6. Disc Drive Extension: Pyramid to Vista – Sara Ciasto

- Sara provided an overview of the Disc Drive Extension Alternative from Pyramid to Vista including preliminary lane configurations and potential facility types.
- Initial findings indicate the need for Disc Drive to be a 6 lane arterial facility from Pyramid Highway to Sparks Boulevard.
- At Pyramid and Disc, initial findings indicate the need for dual lefts and dual rights from Disc to Pyramid.
- At the intersection of Disc and Galleria, preliminary analysis calls for dual lefts at all four quadrants in addition to acceleration lanes for right turn movements. Further traffic analysis is needed to determine whether all lanes/movements are necessary to meet policy level of service, but for initial layout and potential impacts, the team opted to show the maximum potential build-out.
- Based on access management standards within the RTP, from Galleria to the east, Disc is classified as a moderate access arterial. This would limit side street access between Galleria and Sparks Boulevard to right-in/right-out configurations with left-in configurations where they are possible. Left-out configurations are restricted by the access management standards.
- Disc is constrained between Sparks and Vista Boulevards due to current development. Due to space constraints the team is currently looking at a three lane westbound and two lane eastbound configuration in this area.
- As shown, eastbound left turn movements to commercial properties on the north side would be precluded due to spacing and queuing requirements on Disc at both the Sparks Boulevard and Vista Boulevard intersections.
- To meet access management standards, reducing the number of driveway accesses to the commercial properties on the north side of Disc between Sparks and Vista from the existing five to three would need to be considered.

7. Sun Valley Crossing – Sara Ciasto

- Per the conversation at the last TAC meeting, the team looked at an interchange involving the connector and the proposed future West Sun Valley Arterial as shown in the RTP. Initial analysis indicates that a typical diamond interchange would not be an option due to grades and ramp length requirements. A split diamond interchange between Sun Valley Boulevard and a West Sun Valley arterial was also considered. However, the frontage road grades between the two would approach 10 percent which is not feasible.
- Potentially feasible interchange layout options were reviewed for a potential future West Sun Valley arterial interchange location.
- Sun Valley Boulevard interchange alternative options were also reviewed. Any of the interchange types at this location would involve local access impacts as well as additional right-of-way impacts.

8. US 395 Interchange Alternatives – Sara Ciasto

- Sara provided an overview of the at-Parr and south-of-Parr interchange alternatives currently being considered. As per the discussion at the previous TAC meeting, the at-Parr alternative has been modified to accommodate connector access from Parr/Dandini Boulevard. As this access has proven to be feasible, the north-of-Parr alternative will be dropped from further analysis as per recommendations made at the October 2009 TAC meeting. The at-Parr and south-of-Parr alternatives will be carried forward for further analysis.
- The at-Parr alternative would require some realignment of Dandini. In discussions with DRI, their master plan at this time shows Raggio Parkway eventually becoming the primary through-road with Dandini as the secondary access. If the at-Parr alternative is selected as the preferred alternative, it is likely that the geometry of the connector, Dandini, and Raggio could be reworked to better fit with their master plan needs.
- The existing Clear Acre on- and off-ramps from US 395 would need to be eliminated for the south-of-Parr alternative in order to make the interchange work due to its proximity to the US 395/Clear Acre/McCarran/Sutro interchange. The proximity issues also make this alternative relatively complex.

9. Environmental Update – Jim Clarke

- Jim Clarke provided a brief update on environmental activity since the last TAC meeting.
- The team, FHWA and NDOT recently met with the Reno-Sparks Indian Colony (RSIC) to discuss some of their concerns with possible impacts to their commercial development plans for a parcel they own on Pyramid and Eagle Canyon. They also provided the RSIC with a Section 106 update. The team will continue to meet with the RSIC as more traffic analysis is performed and potential facility options are pared down further.
- Wetland and biological fieldwork crews were unable to begin surveys this month due to the recent snows. Weather permitting, the crews plan to come out again in early February.
- Initial noise monitoring began the week of January 18th.
- The team is beginning to inventory potentially historic structures within the study area and will be evaluating these structures for National Register of Historic Places eligibility.
- Archeological surveys will not begin until a better defined corridor is provided, however, the team is working ahead to get the permissions needed from the various agencies so that fieldwork can move forward once a more defined corridor is identified.
- Administrative EIS is anticipated to be ready for review in early fall of 2010.
- A signed Draft EIS for agency and public review is anticipated in spring 2011.
- A signed Final EIS is anticipated for early 2012.
- Record of Decision is anticipated in summer 2012.

10. Public Outreach Activity Update – Bryan Gant

- Bryan provided a brief overview of the public outreach activity that has taken place since the last TAC meeting.

11. Next Steps – Bryan Gant

- The team would like to have the next TAC meeting as soon as feasible so that decisions can be made regarding additional alternatives screening in order to move the Level 3 screening process along.
- The team has begun the initial analysis of the supplemental alternatives that have been carried forward (lane types, transit options, etc.) and would like to begin presenting initial findings to the TAC and begin the screening process for these supplemental alternatives.

12. Q & A

Q: Are greater traffic volumes projected on the connector with the at-Parr or south-of-Parr alternative?

A: According to the model, the south-of-Parr alternative attracts greater volumes.

Q: Have you considered using measurements other than LOS as a comparison parameter?

A: Our measures of effectiveness are not limited to LOS. The team will be looking at several different parameters including travel time.

Q: What are the travel demand numbers based on?

A: The travel demand model generates projected volumes based on forecasted population and employment numbers as well as land use designations.

Q: Are the travel demand models adjusted for the current economic downturn with many of the planned developments on hold indefinitely?

A: We are currently looking at two sets of numbers, those within the adopted RTP and a lower demand threshold as requested by NDOT to account for potential changes to projected demand brought about by the economic downturn. This approach will be outlined in detail within the EIS.

Q: Has LOS analysis been performed on the Disc Drive alternative from Pyramid east to Vista?

A: LOS analysis has not yet been performed at this location.

Q: Why would you want to restrict yourself to existing right-of-way on Disc between Sparks and Vista? Wouldn't we want to assume that we need to build what meets demand? We should be looking at what is needed despite existing constraints and then back-off from there if it becomes necessary.

A: We felt that this area was particularly sensitive due to existing development. The team can certainly look at widening the facility to what is needed and look at ROW impacts. The team does need to take into consideration all potential impacts including environmental and it would be prudent to pare down the ROW impacts upfront rather than waiting for the public to demand that those changes be made. In this case the team will define what is needed and then look at what can be pared down to and determine an optimal trade-off scenario.

Q: Does the travel model show sufficient demand for a West Sun Valley Arterial connection point?

A: The model indicates that there is less demand traveling east on the West Sun Valley interchange alternative while there is greater demand traveling west. The opposite is true when the Sun Valley Boulevard interchange alternative is modeled. The infrastructure required for a West Sun Valley interchange is due to geometric and safety issues and not based upon projected demand for the facility.

Q: Is it really necessary to provide access to the connector from Sun Valley? What about limited access/half interchange (on-ramp eastbound, off-ramp westbound)?

A: The team has modeled the connector with limited access to and from the east. We will know more once we have had more opportunity to meet with Sun Valley residents to further discuss what type of access, if any, the community would desire.

Q: Is there a significant reduction in right-of-way impacts with the West Sun Valley Arterial interchange location as compared to an interchange at Sun Valley Boulevard?

A: Upon cursory review, there would be some reduction in right-of-way impacts, but it is not believed to be a significant difference between the two alternatives. Further analysis will be required to determine the exact number of impacts.

Q: When is it anticipated that the proposed West Sun Valley Arterial would be needed?

A: The proposed West Sun Valley Arterial is part of the 2018 planning horizon.

Q: Will the system-to-system ramps be built as single or double lane facilities?

A: The system-to-system ramps at US 395 will likely need to be double lane facilities due to initial travel demand findings.

Q: Will the cooperating agencies also have the opportunity to review the Administrative EIS prior to the signed Draft EIS?

A: Yes, cooperating agencies will have the opportunity to review and comment on the Administrative EIS.

13. Comments

Note was made that the 2018 and 2030 horizon forecasts in the current RTP have been adjusted based on a consensus forecast to reflect the anticipated effects of the current economic conditions on those growth horizons. These numbers will be provided by the RTC to the study team and will be reflected in the travel demand model.

It was noted that the West Sun Valley Arterial interchange with the connector would require a significant amount of new infrastructure which might not be cost-effective given the potential travel demand for an interchange at this location.

Note was made that the team does have plans to hold a focused design workshop in Sun Valley to get a better idea of the community's views on what level of access they need/desire, potential interchange locations/types, and potential impacts within the community.

Note was made that historically the Sun Valley community has generally been against any widening, additional signalization, or other improvements that might add traffic to Sun Valley Boulevard.

As the study moves forward, it will be important to understand the functionality of the at-Parr and south-of-Parr interchange alternatives, LOS, and cost comparisons.

Note was made that with the current south-of-Parr configuration, there would be no access to Clear Acre/McCarran when traveling westbound on the connector. This may prove to be in conflict with driver expectations as well as preclude the connector being used by those traveling from the Pyramid corridor to destinations within northwest Reno.

One of the benefits of the at-Parr alignment would be that traffic traveling toward northwest Reno could potentially take the connector to Parr Boulevard and use Parr to travel to South Virginia, allowing them to avoid traffic at the Clear Acre/McCarran interchange.

The at-Parr alternative would also potentially improve conditions at the current Parr Boulevard/US 395 interchange.

Note was made that the team should consider noticing City of Sparks residents regarding CAB presentations and other outreach activities in Spanish Springs and Sun Valley so that they have an opportunity to be more involved in the process. Perhaps this could be accomplished by posting notices at Sparks City Hall and other venues where City residents are more likely to see these notices.

NOTE: An outlook invite will be distributed after a date has been determined for the next TAC meeting. There will be no TAC meeting in February.

Meeting adjourned at 3:30 p.m.

Attachment A Attendance Roster

JAN 21, 2010:- PYRAMID HWY/US 395 CONNECTION - TAC MTG # 10

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Clara Lawson	W.C.		
Chris Martmovich	JACOBS		

Meeting Minutes

Project: Pyramid Highway/US 395 Connection

Purpose: Technical Advisory Committee Meeting

Date Held: August 19, 2010

Location: NDOT District II Conference Room
310 Galletti Way, Sparks NV

Attendees:

FHWA:	Andrew Soderborg
RTC:	Doug Maloy, Chris Louis, Debra Goodwin
NDOT:	Daniel Nollisch, Randy Travis, Phil Slagel
City of Reno:	N/A
City of Sparks:	Jim Rundle, Jon Ericson
Washoe County:	Clara Lawson
BLM:	JoAnn Hufnagle
Reno/Sparks Indian Colony:	N/A
Jacobs:	Bryan Gant, Jim Clarke, Chris Primus (by phone), Sara Ciasto, Chris Martinovich, Ben Taylor
CH2M HILL:	Leslie Regos, David Dodson, Mark Gallegos

Copies: Attendees, File, Del Abdalla, Amir Soltani, Anita Lyday, Carolyn Mulvihill, Charla Honey, Chris Young, Cindy Potter, Denise Thompson, Gina McAfee, Hannah Visser, Howard Riedl, Julie Masterpool, Lee Gibson, Mike Fuess, Mike McCarley, Neil Krutz, Scott Gibson, Scott Nebesky, Sienna Reid, Steve Cooke, Tom Greco, Amy Cummings

Summary of Discussion:

1. Welcome and Introductions – Bryan Gant

- Bryan Gant welcomed attendees, provided introductions, and gave a brief overview of the meeting agenda, goals and objectives. A packet containing a meeting agenda; summary of previous TAC meeting outcomes; Purpose and Need elements; Screening Process Workflow summary; screening summaries for levels 1 through 2B; and level 3 alternatives graphic were provided for review and reference.
- Goal of today's TAC meeting is to provide an in-depth review of TAC and study progress, decisions to-date, and level 3 alternatives.

2. Project Status update – Bryan Gant

- Bryan Gant provided an updated on the current status of the study and reviewed major themes and outcomes from previous TAC meetings.
- Study was placed on hold in early 2010 to allow the RTC to reconsider their major project priorities as well as develop a new travel demand model based on changes to population forecasts and changes to land use densities and allocations. The new Interim Consensus Forecast Model has lower overall population cap totals and redistributes higher densities within the urban core around transit oriented development centers.
- During the hold period, the team spent some time looking at what impact the revised model would have on the previous work performed and decisions made regarding the alternatives studied as

part of the Pyramid Highway/US 395 Connection EIS. Three overall questions needed to be addressed with the new model:

- Are both the proposed Pyramid/McCarran Intersection and Pyramid/US 395 Connection facilities needed?
- Does the new model affect any of the concept decisions made to-date?
- Should we be looking at an arterial connection versus a freeway due to the potential drop in volumes?
- RTC has run 20 different scenarios of ICF model runs to help the team to answer these questions.
- ***Do we need both the Pyramid/McCarran Intersection and Pyramid/US 395 Connection facilities?*** Model runs indicate that the Pyramid/McCarran intersection project would improve operations at the intersection, but would not alleviate congestion issues within the rest of the corridor and surrounding facilities. This would indicate that both projects will be needed.
- ***Does the 2030 ICF affect any of the decisions made during the alternative screening process thus far?*** Model runs using the new ICF data indicate that the alternatives analysis process and decisions made remain valid. Additional modeling performed included the following concepts:
 - Widening Pyramid to 6 lanes from Eagle Canyon to Queen Way
 - 6-lane West Sun Valley Arterial from Eagle Canyon to Dandini
 - Sparks Blvd as 6-lane expressway from Pyramid to I-80
 - 6-lane arterial on Pyramid connecting to a six lane connector arterial to US 395
 - 6-lane Pyramid Freeway with 6-lane US 395 connection freeway.

3. Project Phasing – Bryan Gant

- Direction has been received from the RTC to begin development of phasing concepts for the project. Phasing can potentially have impacts on the NEPA process, however, there is consensus that the scale of the project is such that phasing will be necessary in order to accommodate available funding. The team has begun considering various phasing options that might be employed and will work on more detailed phasing concepts once a preferred alternative has been selected.
- Items that will need to be considered during the development of phasing concepts include:
 - Independent utility - each segment will need to stand alone in order to obtain NEPA clearance.
 - Cost – segments will need to be of a scale that can be built given budget constraints.
 - Interim infrastructure needs – what type of infrastructure will be needed to operate each segment until the next segment can be built?

4. Review of Organizational Structure and Roles – Leslie Regos

- Leslie provided a review of the project organizational structure and the membership make-up and roles of each group.
- The TAC was reminded that they represent their respective agencies and are asked to advise the PMT on each agency's overall perspective and suggestions regarding the project. Each representative is also asked to keep their organizations updated on progress. The TAC serves as both an advisory and recommending body.
- As the study moves forward, the TAC will be asked to make recommendations regarding preferred alternatives to be carried into the DEIS, phasing alternatives and prioritization, and environmental impact mitigation ideas and recommendations.

5. Project Progress Review – Bryan Gant

- Bryan provided a review of the project progress to-date and a review of past TAC meetings including major items discussed and recommendations made by the TAC during each meeting. A summary highlighting the major items covered at each meeting was provided for review.
- An overview of the screening Levels 1 through 2B was provided. Summary for each screening level was provided for review.

6. Environmental Update – Jim Clarke

- There has been some discussion regarding potential funding limitations and how these might affect the NEPA process. In order to get a Record of Decision (ROD), all proposed improvements that we receive the ROD for need to be included in the RTC's long-range, fiscally constrained plan. Currently, the entire project is in the long-range plan, however, in anticipation that this might not be the case down the road we have begun having discussions regarding what the implications might be for the NEPA process.
- Alternative NEPA processes have been discussed:
 - Tiered Process
 - Splitting out the US 395 connection and developing a linking planning and NEPA process
 - Continue with EIS and possibly request a Phased ROD
 - PMT feels a phased ROD makes the most sense at this point.
- 2035 will be used as the design horizon year for the DEIS and FEIS to be consistent with the RTC's long-range plan (the RTP) which they will begin updating in 2011. FHWA and NDOT concur with the use of this horizon year for this study.
- Historic evaluation, archeological, wetlands, biological, and noise monitoring field surveys will begin in approximately 3-4 weeks. A notice has been posted to the project website, email notifications have gone out and County Commissioners have been notified.

7. Off-Alignment Options and Impacts – David Dodson

- David provided an overview of the Pyramid off-alignment alternatives including an introduction of the "Ridge" alignment concept developed since the last TAC meeting.
- QUANTM analysis tool was used early on in the development of the off-alignment concepts through open space area west of the existing Pyramid Highway.
- The Off-alignment concept runs along the hillside just west of the commercial developments to on the west side of Pyramid.
- The new "Ridge" alignment would run through the open space between Pyramid Highway and the Sun Valley Community.
- Besides location, the primary differences would be geometric and operational with the connection at Disc & Pyramid.
- The assumption is that a full service interchange would be needed for the off-alignment to service traffic from Pyramid traveling both south and northbound on the new mainline alignment due to its proximity to the Disc/Pyramid intersection.
- Since the ridge alignment is approximately 1 mile from Pyramid/Disc intersection, a directional interchange is shown (ramps to and from the east). A full service interchange may not be necessary with this mainline alignment location as northbound traffic would likely access the new mainline further north along existing Pyramid Highway rather than at the extended Disc interchange location.
- Further traffic modeling will be necessary to confirm traffic operational differences.
- Both the ridge and off-alignment alternatives would have visual impacts, but the ridge alignment is tucked further into the hills and would likely have fewer visual impacts to the Spanish Springs area, but would have more impacts to the Sun Valley area.
- The ridge alignment is a little shorter than the off-alignment and would potentially provide some construction cost savings.
- The off-alignment concentrates the impacts onto the already developed commercial area, whereas the ridge alignment would bisect what is currently open space.
- The ridge alignment would significantly impact visibility to the commercial properties within the corridor more so than the off-alignment.
- Both options will require significant earthwork.
- ***The consensus was that the off-alignment, ridge alignment, and on-alignment alternatives should be studied further before any decision is made to screen out any of these alternatives and that a fully directional interchange be analyzed for the ridge alignment/connection.***

8. US 395 Interchange Alternatives – Sara Ciasto

- Sara provided a review of the south-of-Parr and at-Parr interchange alternatives.

- Information was received from DRI regarding their future expansion plans. Upon review of these plans, it was determined that the south-of-Parr interchange alternative would significantly impact the DRI's expansion.
- The south-of-Parr interchange alternative is considered less desirable than the at-Parr alternative for the following reasons:
 - Significant impacts to the DRI's expansion plan
 - Conflicts with any future build out of US 395
 - Traffic operational challenges with the existing ramps at Oddie, Clear Acre, and McCarran
 - Reduced flexibility and ROW impacts
- ***TAC recommended that due to the impacts and general operational and engineering issues, the south-of-Parr alternative should be screened out from further evaluation.***

9. New Concept Submitted – Bryan Gant

- Since the last TAC meeting, a new concept (H-20) has been submitted for consideration. This concept would connect Pyramid to Sun Valley Boulevard while using connections to El Rancho and Rock Boulevard to distribute traffic. This concept will be put through the screening process and the PMT will bring the results back to the TAC for additional review and consideration.

10. Next Steps – Bryan Gant

- Work on getting clarification regarding projected population numbers to make sure the models being used are accurate.
- Request official traffic runs for each of the alternatives using the ICF numbers (including the new H-20 alternative).
- Develop no-action and build networks based on the ICF model runs for both opening year and 2035 horizon year.
- Prepare CORSIM microsimulation analysis of the alternatives using the ICF model outputs.
- Meet with NDOT engineers to go over design criteria and obtain input.
- Begin more detailed engineering of alternatives (this will begin once the CORSIM model is available).
- Begin environmental field studies. These will continue through the end of the year.
- PMT will be scheduling a focused workshop with Sun Valley residents to introduce the concepts under consideration and obtain feedback regarding any potential concerns.

11. Q & A

Q: Why doesn't converting Sparks Boulevard to a 6 lane expressway move enough traffic off of Pyramid to relieve congestion?

A: Many of the origins and destinations tend to be moving from Spanish Springs to the Reno core and southwest Reno – this movement is currently supported by Pyramid. By only converting Sparks Blvd, we would be addressing only a portion of the origins and destinations while failing to address the much larger set moving south and west of the corridor – Sparks Blvd would be out of direction travel for the traffic wanting to travel south and west of the corridor.

Q: What is RTC's level of service standard?

A: RTC's level of service standard is LOS E or better.

Q: Has a 4-lane connector been modeled?

A: A 4-lane connector concept has not been modeled. The thinking is that there is little difference in the footprint between a 6-lane and 4-lane facility, so it would make more sense to model the higher capacity facility. It is likely that the facility will be built out as a 4-lane freeway with the capacity to expand to a 6-lane facility at a later date as the need dictates.

Q: Was there an issue with the Alturas power lines with either the at-Parr or south-of-Parr interchange alternatives?

A: The at-Parr alternative would require some weaving through the existing Alturas facilities, but does not pose a fatal flaw.

Q: Isn't the City of Reno processing a special use permit for a substantial expansion of DRI's facilities?

A: Yes, we believe that this is in the works at this time. This is one of the reasons we are recommending screening out the south-of-Parr interchange alternative.

Q: Does the US 395 Connection still have a projected 60,000 ADT?

A: This is still the projected ADT using the ICF model.

Q: Does the at-Parr alternative accommodate all movements?

A: Yes.

Q: Due to the volume of traffic that the US 395 connection is going to load onto the Spaghetti Bowl, are there plans to improve the Spaghetti Bowl to accommodate this traffic load?

A: Yes, there are currently plans for further improvements to the I-80/US 395 Spaghetti Bowl in the future. In addition, the team will be analyzing the necessary improvements to US 395 should there be no improvements completed along this section prior to opening the connector.

13. Comments

Note was made that the state demographer's current estimation is that the Reno/Sparks area will see a decline in population over the next 10 years, beginning to rise again in the 2020 timeframe. By 2030, it is estimated that the population in the region will be similar to the current populations (i.e., ~zero net population growth by 2030). [The project team was not aware of these estimates and will be looking into it further.]

I would like to see proposed cut/fill lines for the off-alignment and ridge alignment alternatives to get a better idea of the impacts of each.

Note was made that businesses may prefer an off-alignment or ridge alignment option as this provides the opportunity to turn Pyramid into more of an attractive parkway providing better access to the commercial sites as well as opening up the possibility for better aesthetic and multimodal options rather than converting Pyramid into a controlled-access freeway facility.

I think regardless of whether we go with the off-alignment or the ridge alignment we should still provide for movements in all directions at the interchange in the area of Disc Drive to provide for driver expectation of being able to enter/exit the freeway facility at the same location.

Note was made that the ridge line above the commercial developments on the west side of Pyramid would be within the City of Sparks' sphere of influence and therefore the team should be discussing this concept with the City's Parks & Recreation staff. West of the ridge would be Washoe County jurisdiction while east of the ridge would be City of Sparks jurisdiction.

Request was made to have meeting presentation materials distributed to the TAC along with meeting summary.

NOTE: There was an outlook invite sent out in error that showed the TAC meetings recurring monthly. TAC meetings will be held bi-monthly (any exceptions to this will be sent out as a separate meeting invite). A new outlook invite will be sent out reflecting a bi-monthly recurrence.

The Next TAC meeting will be held October 21, 2010 from 1:30-4:00pm at the NDOT District II conference room.

Meeting adjourned at 3:40 p.m.

Attachment A

Attendance Roster


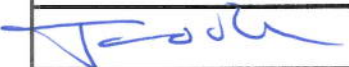




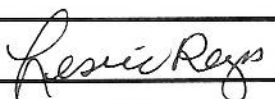

Date: 8/19/10

TAC MEETING ROSTER

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<i>Daniel Nolls</i>	Daniel Nolls	NDOT Environmental Svcs	775.888.7687	mnolls@dot.state.nv.us

Date: 8/19/10

TAC MEETING ROSTER

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	Leslie Regos	CH2M HILL	775.329.7300	lregos@ch2m.com
	Mark Gallegos	CH2M HILL	775.329.7300	mark.gallegos@ch2m.com



Date: 8/19/10

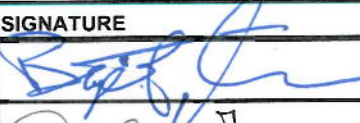

TAC MEETING ROSTER

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<i>Sara Ciasto</i>	Sara Ciasto	Jacobs		sara.ciasto@jacobs.com
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	Steve Cooke	NDOT		scooke@dot.state.nv.us
<i>Steve Oxoby</i>	Steve Oxoby	Carter Burgess <i>JACOBS</i>	775.850.5108	Steve.oxoby@jacobs.com
	Tom Greco	RTC	775.544.7819	tgreco@rtcwashoe.com



Date: 8/19/10

TAC MEETING ROSTER

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Attachment B
Presentation Slides

TAC meeting #11

August 19, 2010

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**PYRAMID
HIGHWAY**

**US 395
CONNECTION**



**PYRAMID
HIGHWAY**

**US 395
CONNECTION**

Agenda

Goal:

In-Depth Review of TAC & Study Progress, Decisions to Date, and Level 3 Screening Items.

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ITEM	LEVEL 1	LEVEL 2		LEVEL 3 [*]
		2A	2B	
Analysis Type	Qualitative P&N Analysis and Fatal Flaw	Major Env. & Traffic Demand	Schematic Design, Traffic, Env. ^{**}	H/V Geometry, Traffic Ops, Detailed Env.
Design Level	Corridor Identification	"Fat" Line Concepts	Single Line Sketches	Up to 15 - percent H/V Alignments
Number of Alternatives	Numerous Alternatives	Several Alts.	Fewer Alts.	Few Alternatives
Decision Point ^{***}	July 08 TAC	Sep 08 TAC	Feb 09 TAC	May 09 TAC

Last TAC January 21, 2010:

- Study Was on Hold March - July 2010.
 - RTC Board Reconsider Priorities
 - Analyze Impacts of New Model
- RTC Interim Consensus Forecast Model (ICF)
 - 2040 RTP Model versus 2030 ICF Model

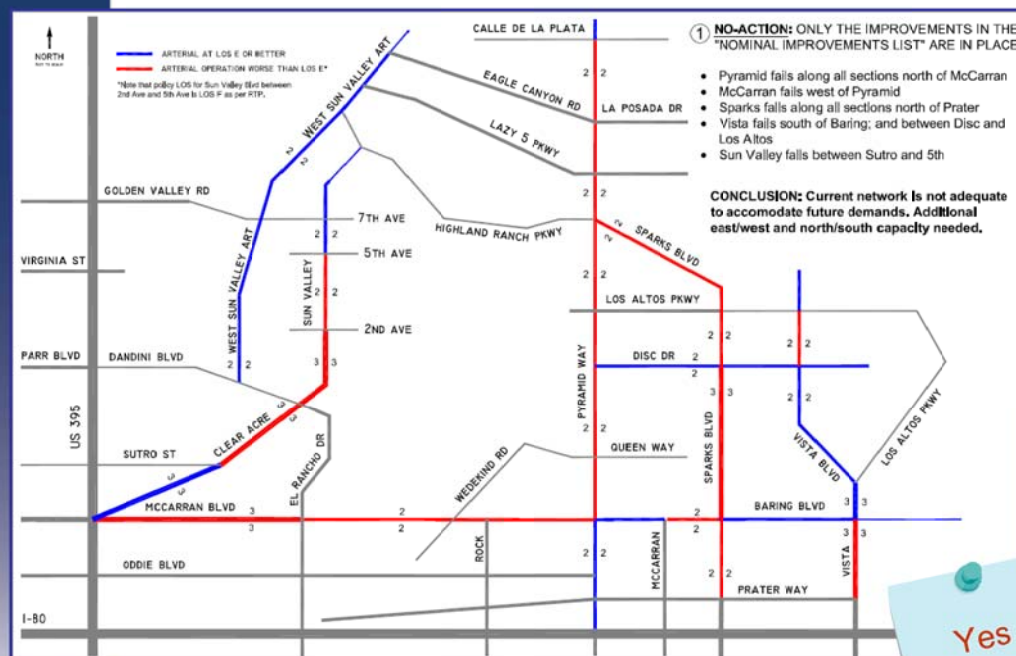
2030 ICF Model Check Questions:

1. Are both the Pyramid McCarran Intersection and US 395 Connector EIS projects needed?
2. Does the new model affect the concept decisions we've already made?
3. Would arterials be more appropriate than a freeway?

20 Model Runs
Requested &
Analyzed

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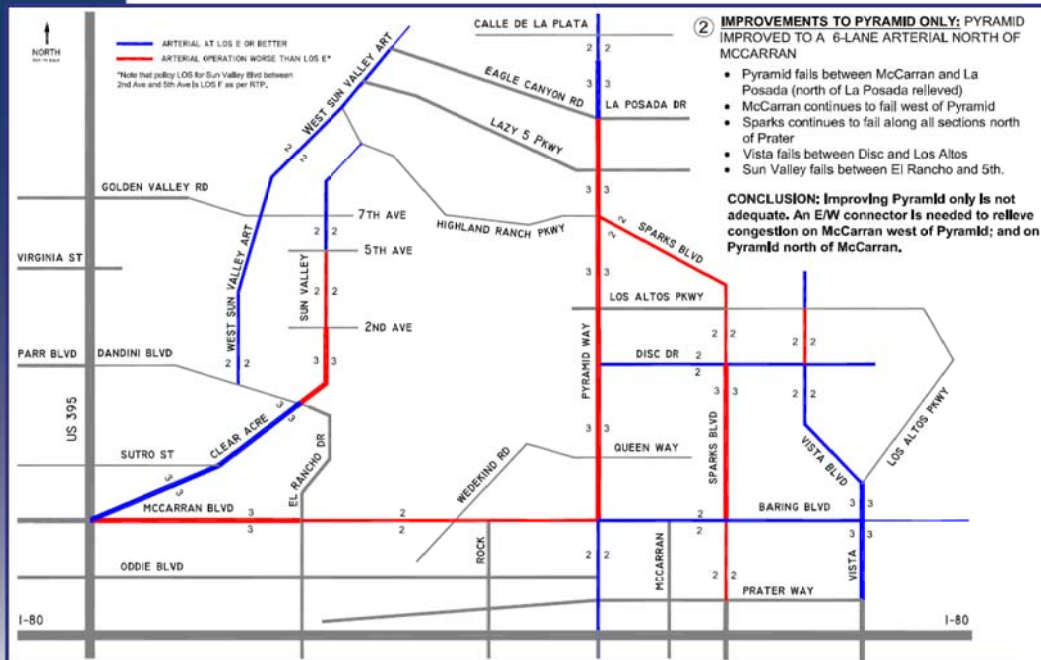
Are both the Pyramid McCarran Intersection and US 395 Connector EIS projects needed?



Yes

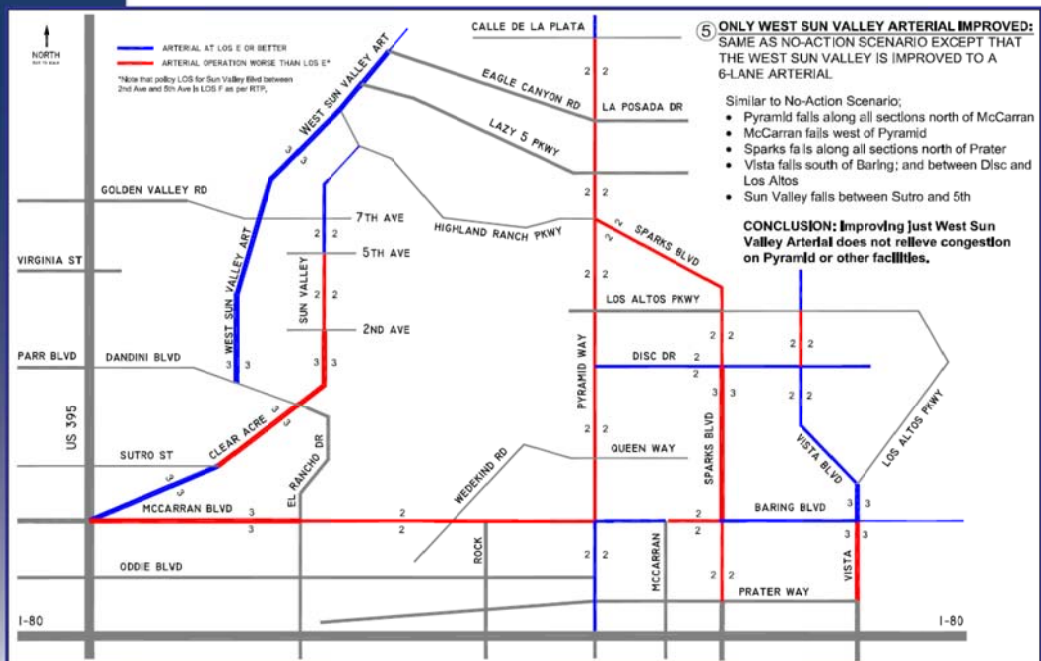
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Does the new model affect the concept decisions we've already made?



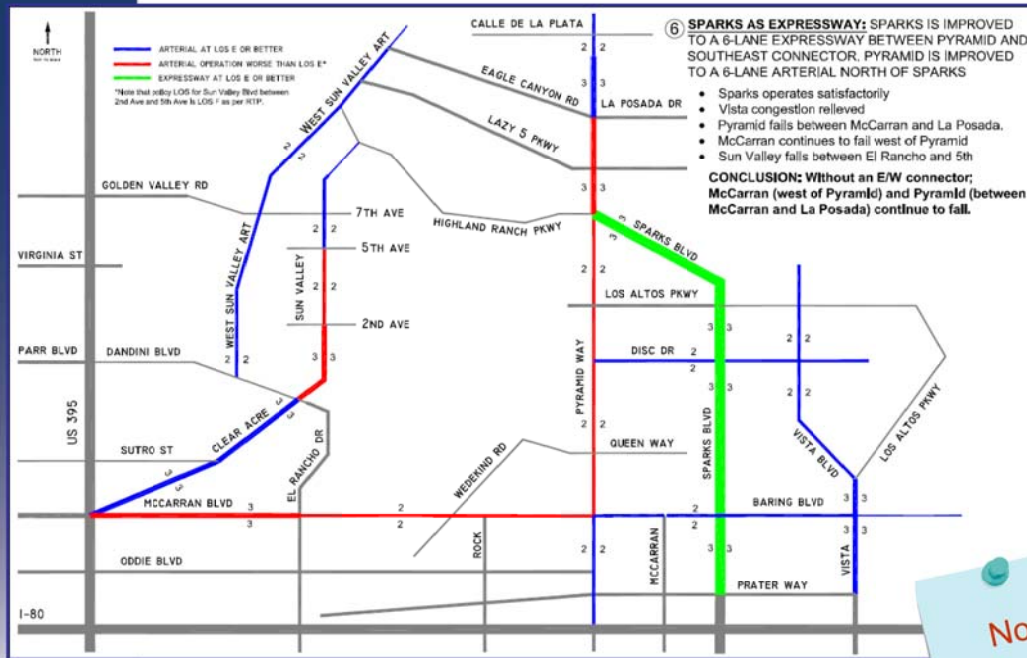
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Does the new model affect the concept decisions we've already made?



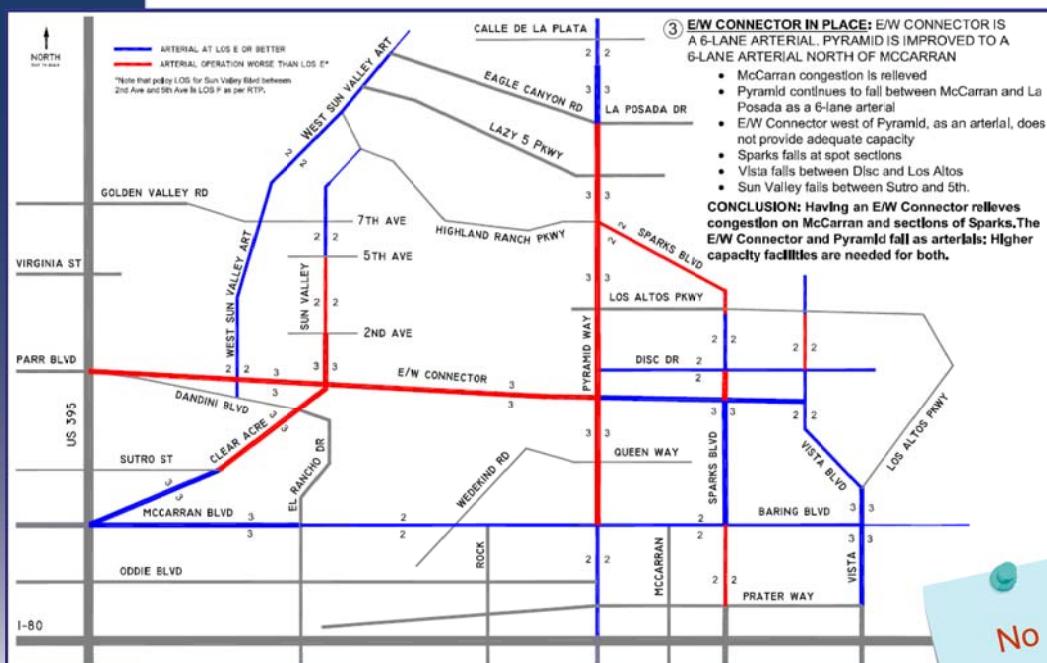
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Does the new model affect the concept decisions we've already made?



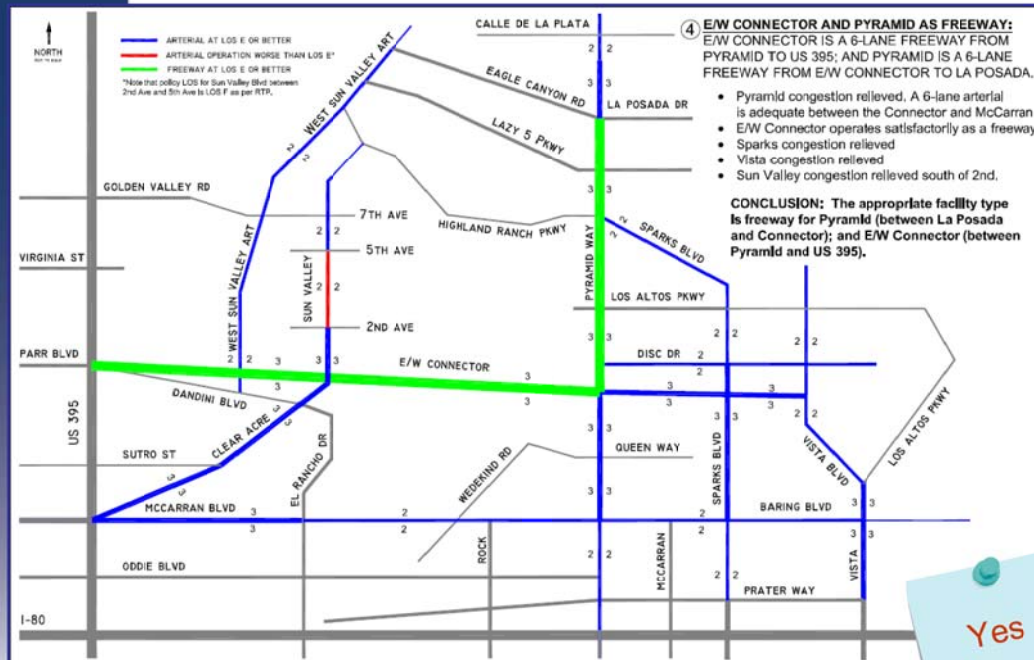
No

Would an arterial be more appropriate than a freeway?



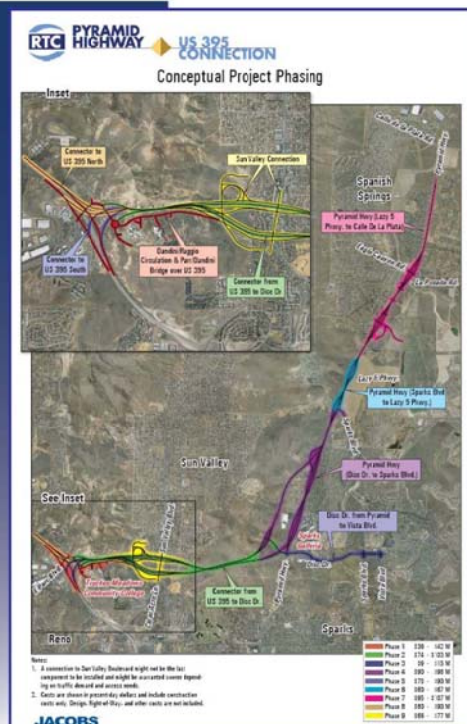
No

Are the concept decisions we've made to date still valid base on ICF Model?



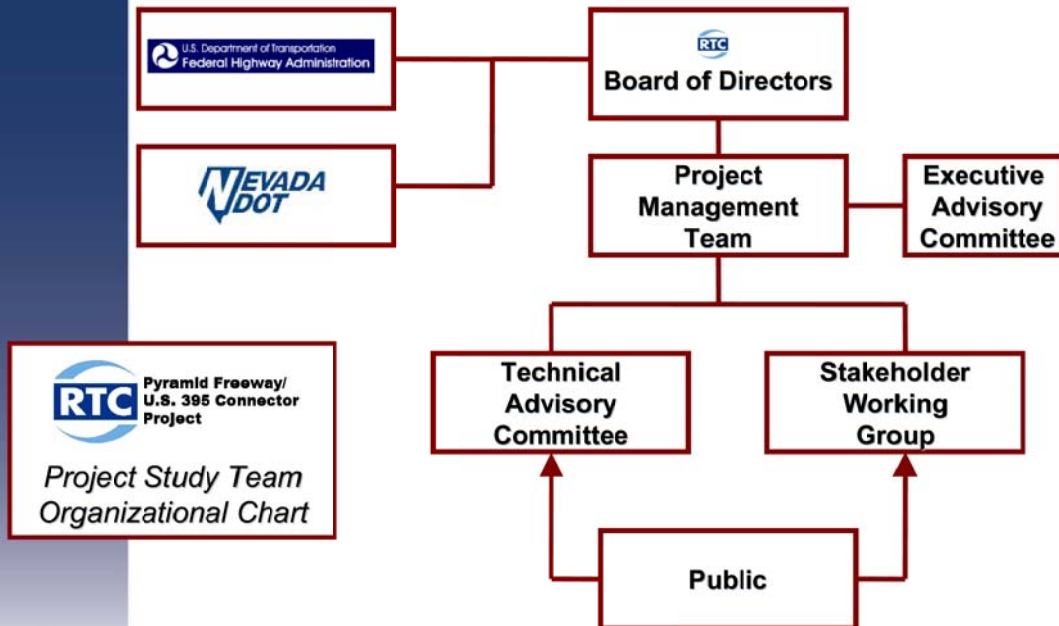
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Study Status Update



Phasing Will Be a Key Focus Area Moving Forward:

1. Overall Phasing Schemes
2. Independent Utility
3. Segment Costs
4. Interim Infrastructure Needs
5. NEPA Implications



1. Provide input and reviews representing your organization.
2. Consistently attend meetings and report back to your organization on project progress.
3. Raise new issues, concerns, and guidance from within your organization that could affect the project.
4. Make recommendations for study team to take forward.
5. Decisions to be made moving forward.

e.g. Level 3 - DEIS Alternatives: Preferred Alt.:
Phasing Priorities: Mitigation Measures

TAC No.	Date	Outcome
1	2-21-08	<ul style="list-style-type: none"> Reviewed the Project's Goals (Purpose and Need) Overview of the Project Process and TAC Responsibilities Discuss Needs in the Corridor to Support Purpose and Need Development
2	4-17-08	<ul style="list-style-type: none"> Reviewed Existing Traffic Collection Data Update on the 2040 Regional Transportation Plan by RTC Discussion Regarding the Results of the April, 2008 Public Meeting
3	7-17-08	<ul style="list-style-type: none"> Further Reviewed and Discussed Purpose and Need Elements Determined the Range of Project Alternatives Discussed Concept Screening Methodology and Process
4	9-18-08	<ul style="list-style-type: none"> Reviewed, Discussed, and Completed Level 1 Concept Screening
5	1-15-09	<ul style="list-style-type: none"> Overview of Level 2A Screening and Criteria Preliminary Traffic Findings Identification of April 2009 Public Meeting
6	2-19-09	<ul style="list-style-type: none"> Traffic and Environmental Analysis Results Level 2A Screening Review and Completion
7	5-21-09	<ul style="list-style-type: none"> Engineering, Traffic, and Environmental Analysis Results Level 2B Screening Review and Completion
8	7-16-09	<ul style="list-style-type: none"> Right-of-Entry Footprint Review and Determination
9	10-15-09	<ul style="list-style-type: none"> Detailed Review and Preliminary Screening of Initial "H17" Concept Alternatives Confirmed Alternatives for Detailed Level 3 Screening Analysis
10	1-21-10	<ul style="list-style-type: none"> Traffic Forecasting Results for Level 3 Screening Interim Level 3 Screening Review

1. Address existing congestion problems on Pyramid Highway.
2. Serve existing and forecasted populations and employment growth.
3. Address existing travel inefficiencies.
4. Address existing safety problems on Pyramid Highway.
5. Address existing and future access needs.
6. Be responsive to regional and local plans.

1. Update on cooperating and participating agency invitations.
2. Review of SWG and public comments on the initial purpose and need elements.
3. Overview of 2040 RTP and revised level of service standards by RTC.
4. Update on existing traffic data collected along the corridor.



Range of Study Concepts / Alternatives:

6 System Alternatives

3 Transit Alternatives

18 Highway Alignment Concepts

7 Lane Type Alternatives

ITEM	LEVEL 1	LEVEL 2		LEVEL 3*
		2A	2B	
Analysis Type	Qualitative P&N Analysis and Fatal Flow	Major Env. & Traffic Demand	Schematic Design, Traffic, Env.	H/V Geometry, Traffic Ops, Detailed Env.
Design Level	Corridor Identification	"Fat" Line Concepts	Single Line Sketches	Up to 15 - percent H/V Alignments
Number of Alternatives	Numerous Alternatives	Several Alts.	Fewer Alts.	Few Alternatives
Decision Point***	TAC July 08	TAC Sep 08	TAC Feb 09	TAC May 09

[illegible]

		Traffic	
P&N Element	Criterion	Analysis Location(s)	Measure
Serve existing and future growth areas	Travel Demand	Representative locations	ADT of alternative
Provide Direct and Efficient Travel Routes	East-West Connections	E/W Screenline from McCarran to North Valley Connector, including McCarran.	ADT
	System Efficiency	Level 2A Study Area	VMT/VHT: Average System Speed by Facility Type, by subarea
Improve Safety	Reduce Congestion	Pyramid Highway (representative locations)	VHD
Alleviate Existing Congestion	Travel Time	Pyramid Highway & Eagle Canyon Drive to Pyramid Way & I-80	Peak period travel time
		Pyramid Highway & Eagle Canyon Drive to US-395 & East Golden Valley Road	
		Pyramid Highway & Eagle Canyon Drive to US-395 & I-80	
		Pyramid Highway & Eagle Canyon Drive to I-80 & Vista	
	Pyramid Way Capacity	Pyramid Way south of McCarran	Peak Hour LOS
Respond to Local and Regional Plans	Consistent?	N/A	Yes/No

Environmental		
Criteria	Description	Measure
Relocations	Residential and business displacements	No. of estimated residential and business relocations
Environmental Justice	Effects to disadvantaged populations	Qualitative assessment*
Critical Habitat	Critical wildlife and/or Plant Habitat	Status and qualitative assessment of impact
Wetlands	Impacts to wetlands	Approximate acreage
Water Resources	Impacts to water resources	Approximate acreage or linear footage
Floodplains	Impacts to Floodplains	Approximate acreage
Historic Resources	Impacts to sites of historic importance	Number of sites impacted
Section 4(f)	Impacts to section 4(f) property.	Approximate acreage
Open Space / BLM	Impacts to existing or planned open space	Approximate acreage



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WEST SUN VALLEY FREEWAY

- ❑ Attracts low volumes.
- ❑ Traffic demand remains on Pyramid, when both the West Sun Valley and Pyramid corridors are expanded.

US 395 CONNECTOR

- ❑ Attracts high demand.
- ❑ Serves traffic between north US-395 and Pyramid corridor.

WEDEKIND CONNECTOR TO MCCARRAN

- ❑ Carries high demand.
- ❑ Expansion of McCarran results in increased load on east McCarran.

VISTA FREEWAY

- ❑ Attracts only moderately higher volume compared to Vista as an arterial.
- ❑ Demand of trip origins and destinations not as well served as other facility expansions.

WEST SUN VALLEY FREEWAY

- ❑ Numerous relocations and potential EJ.

WEDEKIND OPTIONS

- ❑ Wedekind Freeway less than half the relocations of McCarran Freeway alternative.
- ❑ Potential 4(f) with Wedekind Arterial (Wildcreek).

VISTA FREEWAY

- ❑ Very high residential and commercial relocations.

US 395 CONNECTOR

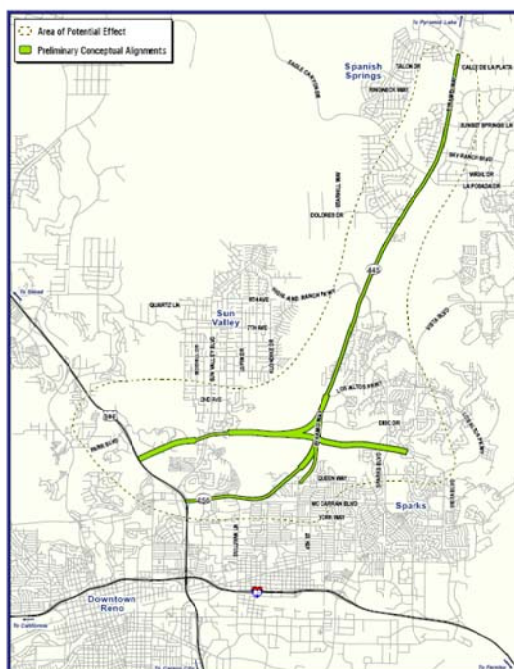
- ❑ High relocations and potential EJ in Sun Valley.
- ❑ Potential 4(f) at Wedekind.

PYRAMID FREEWAY

- ❑ High relocations and potential EJ in northern Sparks.

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Level 2A Screening Summary (DRAFT)																
Screening Element	Traffic Demand and Performance							Environmental Impacts							Comments	
Question	Traffic Demand	Level of Service	Travel Time	Queue Length	Delay	Travel Time	Travel Time	Visual Quality	Visual Quality	Visual Quality	Visual Quality	Visual Quality	Visual Quality	Visual Quality	Visual Quality	Visual Quality
System Alternatives																
2.1 No Action																Not evaluated in Level 2A. Carry forward as supplemental.
2.2 Pedestrian and Bicycle Improvements																Not evaluated in Level 2A. Carry forward as supplemental.
2.3 TDM Improvements																Not evaluated in Level 2A. Carry forward as supplemental.
2.4 TDM Improvements Including Travel Enhancement																Not evaluated in Level 2A. Carry forward as supplemental.
Freeway Alternatives																
3.1 Freeway - No Right Turn																Not evaluated in Level 2A. Carry forward as supplemental.
3.2 Freeway - Regional Bus																Not evaluated in Level 2A. Carry forward as supplemental.
Alternative Alternatives																
4.1 Pyramid/McCarran Freeway																Screen out due to similar performance as H6/H7 but with more impacts.
4.2 Pyramid/McCarran Freeway																Screen out due to similar performance as H6/H7 but with more impacts.
4.3 Pyramid/McCarran Freeway																Screen out due to similar performance as H6/H7 but with more impacts.
4.4 Pyramid/McCarran Freeway																Screen out due to similar performance as H6/H7 but with more impacts.
4.5 Pyramid/McCarran Freeway																Screen out due to similar performance as H6/H7 but with more impacts.
4.6 Pyramid/McCarran Freeway																Screen out due to similar performance as H6/H7 but with more impacts.
4.7 Pyramid/McCarran Freeway																Screen out due to similar performance as H6/H7 but with more impacts.
4.8 Pyramid/McCarran Freeway																Screen out due to similar performance as H6/H7 but with more impacts.
4.9 Pyramid/McCarran Freeway																Screen out due to similar performance as H6/H7 but with more impacts.
4.10 Pyramid/McCarran Freeway																Screen out due to similar performance as H6/H7 but with more impacts.
4.11 Pyramid/McCarran Freeway																Screen out due to similar performance as H6/H7 but with more impacts.
4.12 Pyramid/McCarran Freeway																Screen out due to similar performance as H6/H7 but with more impacts.
4.13 Pyramid/McCarran Freeway																Screen out due to similar performance as H6/H7 but with more impacts.
4.14 Pyramid/McCarran Freeway																Screen out due to similar performance as H6/H7 but with more impacts.
4.15 Pyramid/McCarran Freeway																Screen out due to similar performance as H6/H7 but with more impacts.
4.16 Pyramid/McCarran Freeway																Screen out due to similar performance as H6/H7 but with more impacts.
4.17 Pyramid/McCarran Freeway																Screen out due to similar performance as H6/H7 but with more impacts.
4.18 Pyramid/McCarran Freeway																Screen out due to similar performance as H6/H7 but with more impacts.
4.19 Pyramid/McCarran Freeway																Screen out due to similar performance as H6/H7 but with more impacts.
4.20 Pyramid/McCarran Freeway																Screen out due to similar performance as H6/H7 but with more impacts.
Local Road Alternatives																
5.1 General Purpose Lanes on new and/or improved facilities																Not evaluated in Level 2A. Carry forward for further analysis.
5.2 HOV Lanes on new and/or improved facilities																Not evaluated in Level 2A. Carry forward for further analysis.
5.3 HOV Lanes on new and/or improved facilities																Not evaluated in Level 2A. Carry forward for further analysis.
5.4 HOV Lanes on new and/or improved facilities																Not evaluated in Level 2A. Carry forward for further analysis.
5.5 HOV Lanes on new and/or improved facilities																Not evaluated in Level 2A. Carry forward for further analysis.
5.6 HOV Lanes on new and/or improved facilities																Not evaluated in Level 2A. Carry forward for further analysis.



Level 2B Concepts:

1. H6 – Pyramid, Wedekind, and McCarran Freeways
2. H7 - Pyramid, Wedekind, and McCarran Freeways with Vista Connection
3. H17 – Pyramid and US 395 Connector Freeways



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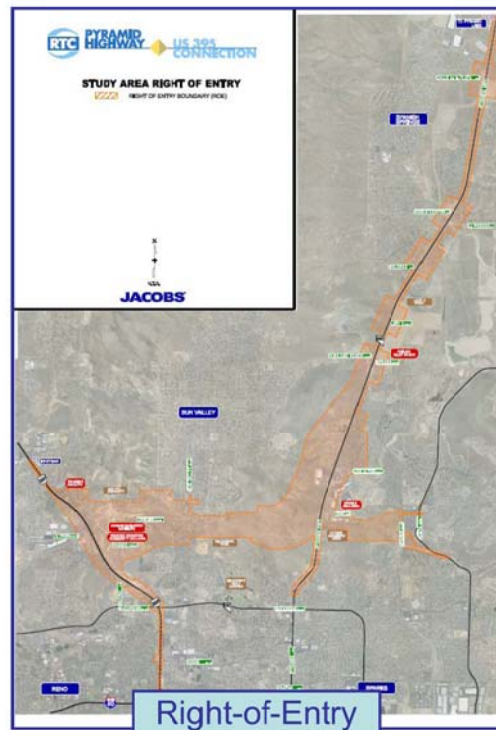
H6 & H7

H6 & H7		H17 South	
Positive	Negative	Positive	Negative
<ul style="list-style-type: none"> ❑ Traffic close to urban core ❑ Better vertical grades 	<ul style="list-style-type: none"> ❑ Must close Oddie interchange ❑ Interchange spacing ❑ Visual impacts ❑ Commercial impacts ❑ Residential impacts ❑ Traffic control ❑ Ultimate spaghetti bowl conflict ❑ Impacts to Wildcreek 4(f) ❑ Little future flexibility ❑ Not publicly supported ❑ Does not serve Sun Valley ❑ Does not support valley-to-valley movement well ❑ Relies on one corridor for east / west movement 	<ul style="list-style-type: none"> ❑ High speed system ramps ❑ Movements match travel patterns ❑ Opportunities for local circulation improvements ❑ Enhances West Sun Valley connectivity ❑ Minimal traffic control ❑ Supports valley-to-valley movement well ❑ Adds to east / west roadway network ❑ Provides access to Sun Valley 	<ul style="list-style-type: none"> ❑ Interchange spacing with Sutro ❑ Impacts to University property ❑ Large cut / fills ❑ Residential & commercial impacts in Sun Valley ❑ Residential impacts near Sutro ❑ Steep mainline grades

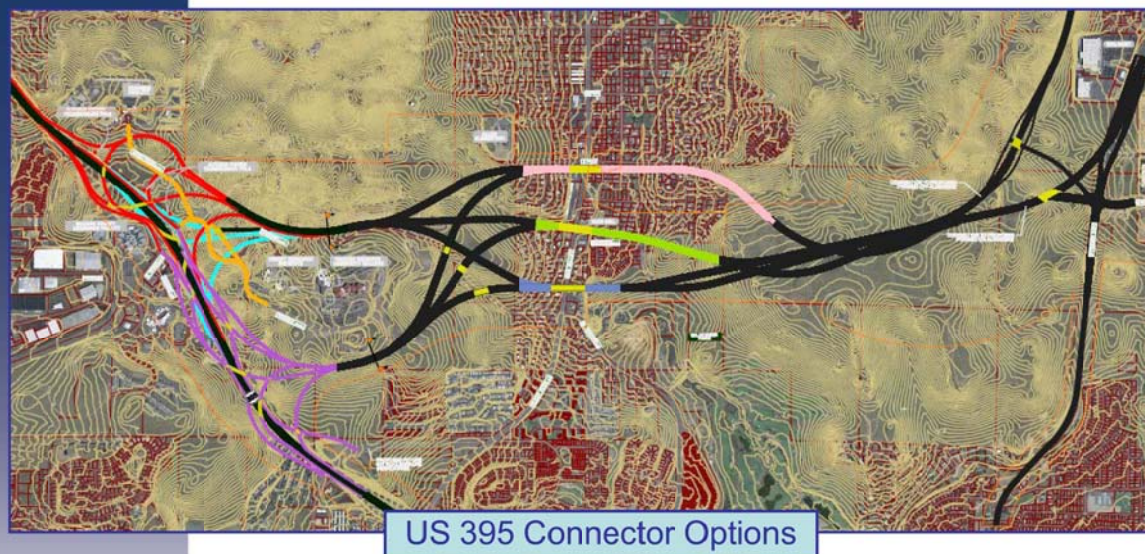
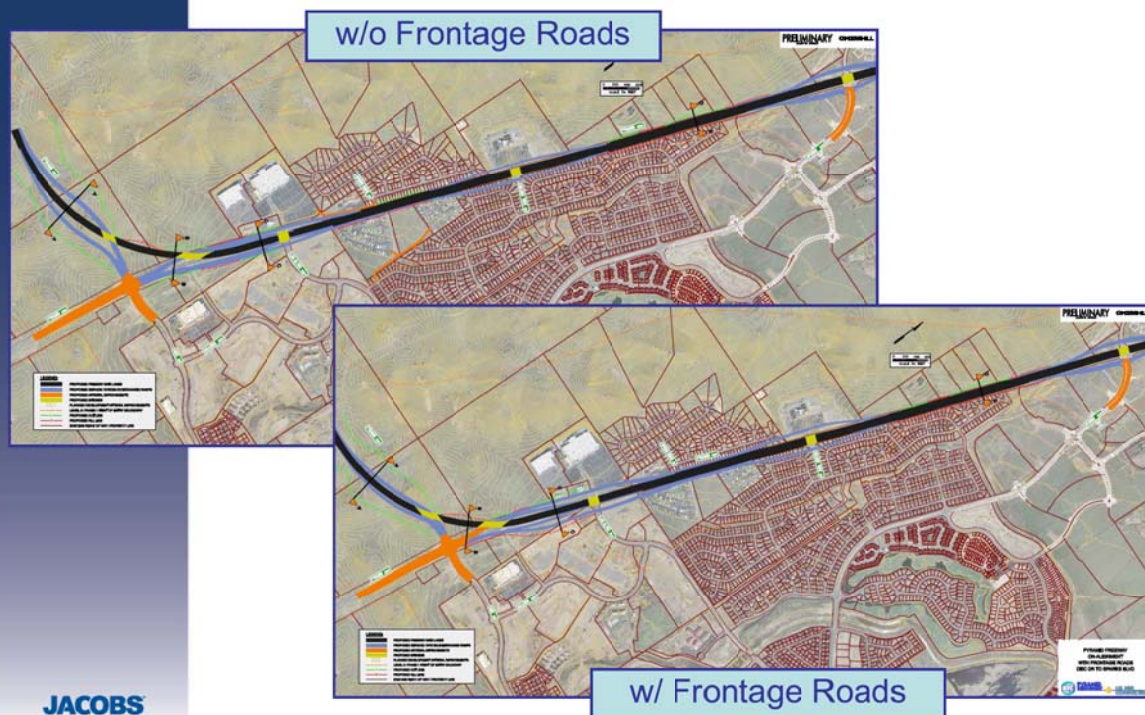
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L2B Screening



Right-of-Entry

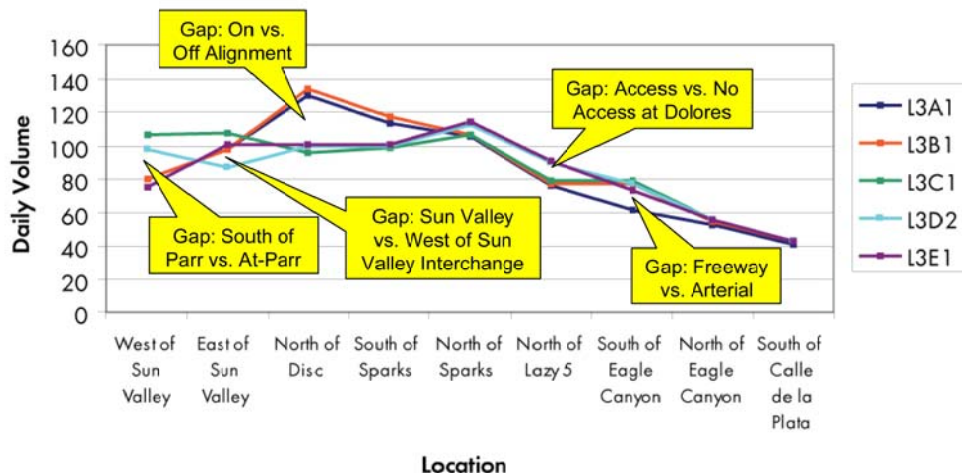


TAC Meeting #9 Level 3 Screening Results:

- ✓ Eliminated Pyramid On-Alignment w/o Frontage Roads.
- ✓ Eliminated Northerly Sun Valley Crossing.
- ✓ Eliminated North of Parr Interchange.

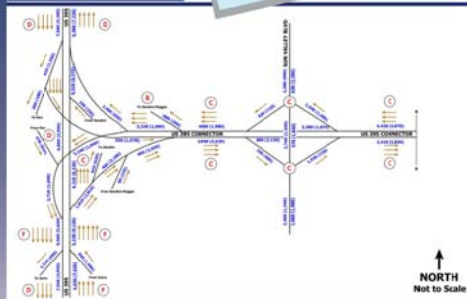
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Corridor Volumes
Freeway + Frontage

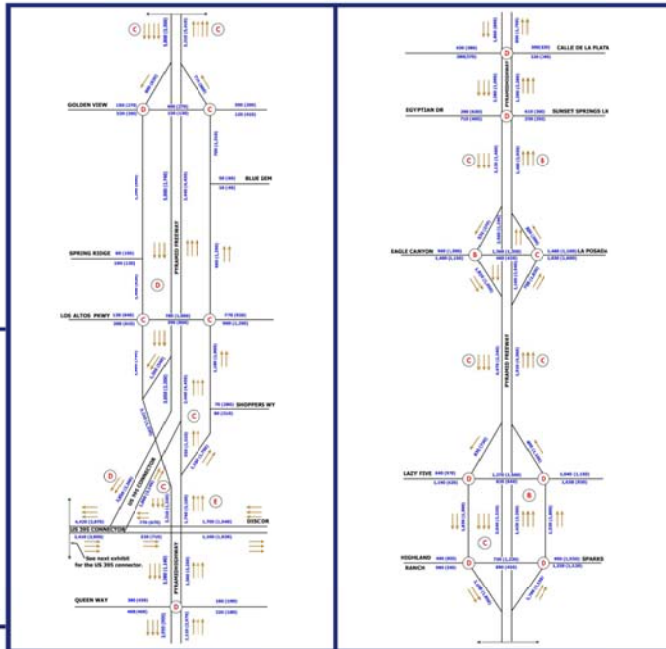


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Will Need to Reconsider with ICF



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FACILITY TYPE TRANSITION

Freeway Ends at Lazy 5 Pkwy, Arterial to North	X
Freeway Ends at Lazy 5 Pkwy, Expressway to Eagle Canyon	
Freeway Ends at Eagle Canyon	
Freeway Ends at Egyptian Drive	X

Will Need to Reconsider with ICF

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EAGLE CANYON INTERCHANGE OPTIONS

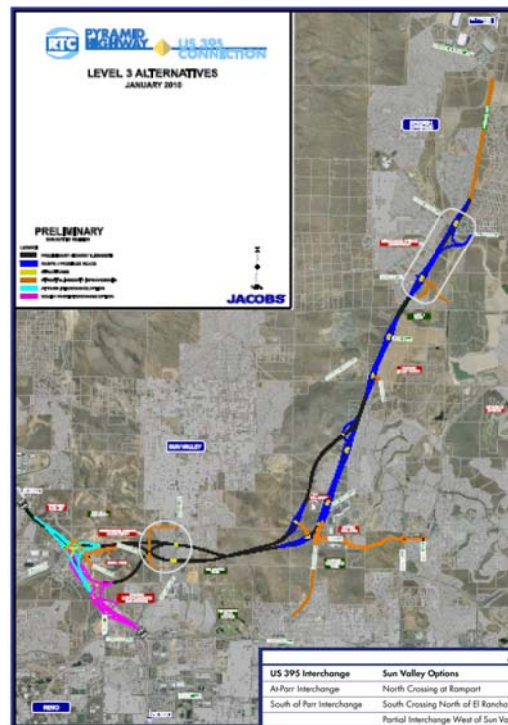
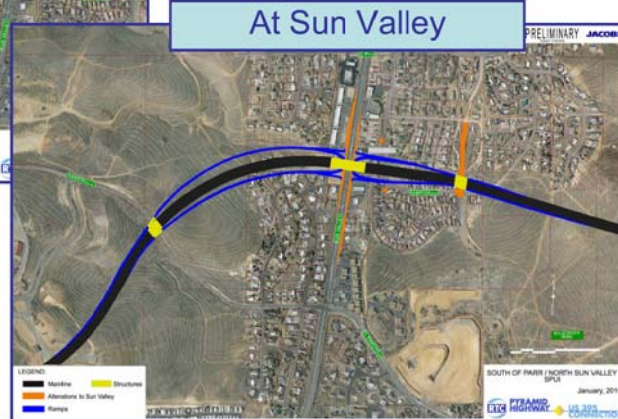
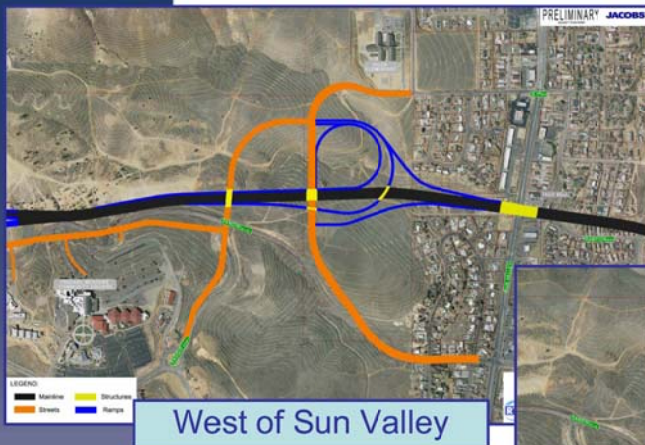
EAGLE CANYON	DOLORES	CONNECTION
ParClo AB	Diamond	2-way FR
Diamond	Diamond	1-way FR w/ Slips
Diamond	Diamond	1-way FR w/o Slips
N.E. Loop	Diamond	1-way FR
S.E. Loop	Diamond	2-way FR to R. James
N.E. Loop	Diamond	None
Diamond	Diamond	None

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SUN VALLEY INTERCHANGE OPTIONS

TYPE	LOCATION	COMMENTS / STATUS
Diamond	Sun Valley	Either Crossing
Diamond	West S.V.	Ramps too Steep X
Split Diamond	Both	Frontage Rds. too Steep X
ParClo	Sun Valley	Unsafe Downhill Speed ▲ X
ParClo	West S.V.	Unsafe Downhill Speed ▲ X

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ALTERNATIVES SUMMARY			
US 395 Interchange	Sun Valley Options	Alignment Options	Northern Access Options
At Parr Interchange	North Crossing at Rampart	On-Alignment	Eagle Canyon/Dolores Interchange Options
South of Parr Interchange	South Crossing North of El Rancho	Off-Alignment	Facility Type Transition
	Partial Interchange West of Sun Valley		
	Tight Diamond at Sun Valley Blvd		

NEPA Approach

- Concern about inadequate funding to cover all proposed improvements.
- Discussion with FHWA and NDOT about options to advance NEPA process in light of funding limitations.
- Decision continue with EIS.
 - Anticipate “Phased ROD” approach.

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Design / Horizon Year

- Year 2040 used to develop concepts / alternatives to date.
- RTC model and RTP changes planned.
- Propose year 2035 for EIS.

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Field Surveys

- ❑ To be conducted before year's end:
 - ✓ Historic
 - ✓ Archeology
 - ✓ Wetlands
 - ✓ Biological
 - ✓ Noise

Off-Alignment “Ridge” Option

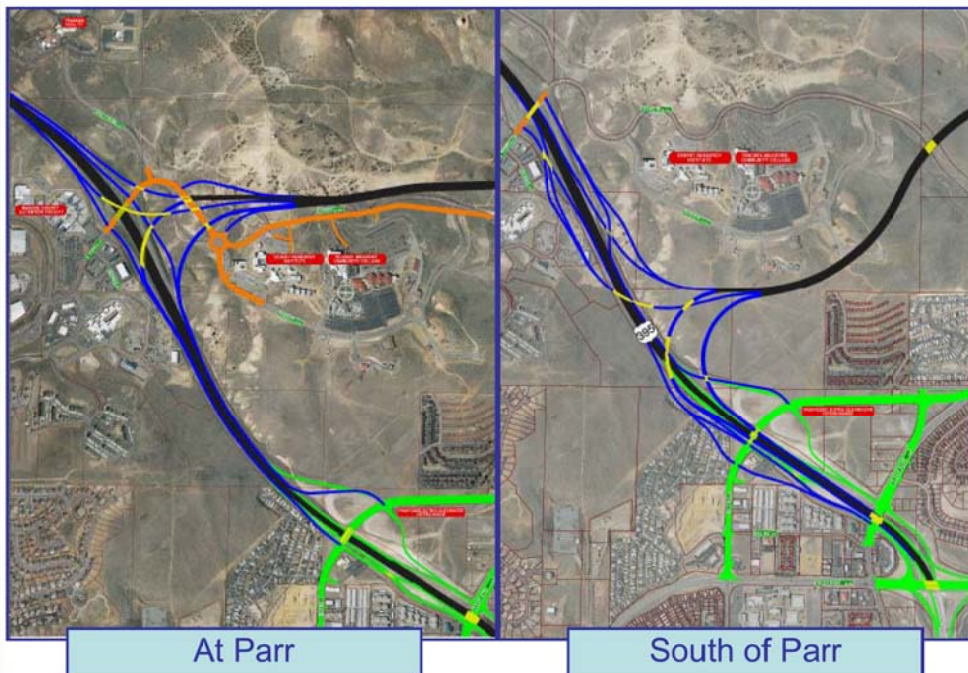


Pros

- Visual impacts to Spanish Springs are reduced.
- Less overall visual impacts due to location.
- Shorter travel distance from Pyramid (i.e. Sparks Blvd.) to US 395.

Cons

- Visual impacts to Sun Valley are increased.
- Increased impacts to Washoe County open space / proposed trails.
- Reduced accessibility from Disc Drive and Pyramid Highway.

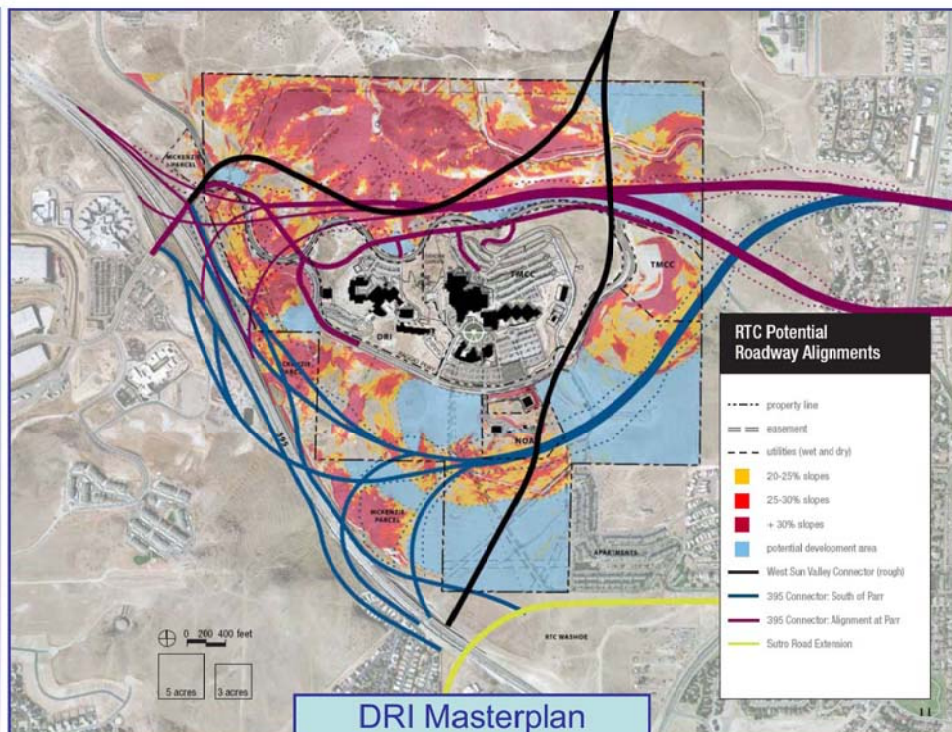


Pros

- ❑ Most direct travel pattern for primary movement.
- ❑ Model indicates higher volumes.
- ❑ Reduced visual impacts.

Cons

- ❑ Proximity to Clear Acre / Sutro / McCarran interchange.
- ❑ Increased footprint, relocations, and cost
 - ❑ 3 vs 50 residences / businesses
- ❑ Reduced flexibility for future changes in traffic patterns / growth.
- ❑ Impacts to DRI master plan.



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Traffic

- ☐ Request ICF Model runs for alternatives.
- ☐ Develop no-action and build networks.
- ☐ Prepare CORSIM models for alternatives.

Engineering

- ☐ Design coordination meeting with NDOT.
- ☐ Advancement pending CORSIM development.

Environmental

- ☐ Initiate environmental field surveys.

Attachment C
Hand-out Packet

Technical Advisory Committee (TAC) Meeting #11

August 19, 2010; 1:30 p.m. – 3:30 p.m.

NDOT District II Conference Room

GOAL

In-Depth Review of TAC & Project Progress, Decisions to Date, and L3 Alternatives.

- | | |
|--|--------------------|
| 1. Introductions / Agenda Review – <i>Bryan Gant</i> | 1:30 – 1:40 |
| 2. Project Status Update – <i>Bryan Gant</i> | 1:40 – 1:45 |
| 3. Role of TAC – <i>Leslie Regos</i> | 1:45 – 1:55 |
| 4. Project Progress Review – <i>Bryan Gant, Team</i> | 1:55 – 2:55 |
| 5. Break | 2:55 – 3:05 |
| 6. Environmental Update – <i>Jim Clarke</i> <ul style="list-style-type: none">• NEPA Approach• Design / Horizon Year• Environmental Field Surveys | 3:05 – 3:25 |
| 7. Level 3 Screening Items – <i>David Dodson, Sara Ciasto</i> <ul style="list-style-type: none">• Off-Alignment Options & Impacts• US 395 Interchange Alternatives• H20 Alternative | 3:25 – 3:55 |
| 8. Summary of Progress / Next Steps – <i>Leslie Regos</i> | 3:55 – 4:00 |
| 9. Adjourn Meeting | 4:00 |

TAC No.	Date	Outcome
1	2-21-08	<ul style="list-style-type: none"> Reviewed the Project's Goals (Purpose and Need) Overview of the Project Process and TAC Responsibilities Discuss Needs in the Corridor to Support Purpose and Need Development
2	4-17-08	<ul style="list-style-type: none"> Reviewed Existing Traffic Collection Data Update on the 2040 Regional Transportation Plan by RTC Discussion Regarding the Results of the April, 2008 Public Meeting
3	7-17-08	<ul style="list-style-type: none"> Further Reviewed and Discussed Purpose and Need Elements Determined the Range of Project Alternatives Discussed Concept Screening Methodology and Process
4	9-18-08	<ul style="list-style-type: none"> Reviewed, Discussed, and Completed Level 1 Concept Screening
5	1-15-09	<ul style="list-style-type: none"> Overview of Level 2A Screening and Criteria Preliminary Traffic Findings Identification of April 2009 Public Meeting
6	2-19-09	<ul style="list-style-type: none"> Traffic and Environmental Analysis Results Level 2A Screening Review and Completion
7	5-21-09	<ul style="list-style-type: none"> Engineering, Traffic, and Environmental Analysis Results Level 2B Screening Review and Completion
8	7-16-09	<ul style="list-style-type: none"> Right-of-Entry Footprint Review and Determination
9*	10-15-09	<ul style="list-style-type: none"> Detailed Review and Preliminary Screening of Initial "H17" Concept Alternatives Confirmed Alternatives for Detailed Level 3 Screening Analysis
10	1-21-10	<ul style="list-style-type: none"> Traffic Forecasting Results for Level 3 Screening** Interim Level 3 Screening Review

* TAC Meeting #9 Consisted of a Detailed Workshop

** Traffic Forecasting Results Based on 2040 RTP Travel Demand Model

Purpose: Provide improvements to serve existing and future growth areas.

Need: According to the US Census Bureau the county population increased by 33.3 percent from 1990 to 2000 while Reno and Sparks populations grew by 34.8 and 24.3 percent, respectively. Also, approved development within Sparks and Spanish Springs includes approximately 35,000 new residential units, and millions of square feet of commercial use. Travel demand for the existing and forecasted growth far exceeds existing capacity.

Purpose: Provide direct and efficient travel routes to address existing travel inefficiencies.

Need: Currently, there is no east-west route north of McCarran Boulevard. In addition, there are limited points of access into and out of the Spanish Springs and northern Sparks area for traffic destined for the regional freeway system and to the greater metropolitan area.

Purpose: Alleviate existing congestion problems on Pyramid Highway.

Need: Currently, traffic volumes on Pyramid Highway regularly exceed the existing capacity of Pyramid Highway going southbound in the morning peak travel period and going northbound in the afternoon peak.

Purpose: Improve existing and future safety issues on Pyramid Highway.

Need: Crash data indicate that existing safety issues on Pyramid Highway have worsened in recent years. The overall crash rate (crashes per million vehicle miles) for Pyramid Highway was 0.82 in 2005, 0.97 per in 2006, and 1.26 per in 2007. This represents a 55% increase in the overall crash rate

Purpose: Respond to regional and local plans.

Need: Improvements to Pyramid Highway and a new US 395 Connector are both found in the *RTC of Washoe County 2030 Regional Transportation Plan* (RTP) and are part of a larger plan to meet transportation needs throughout the region. Also, the *Washoe County Comprehensive Plan* and the county's *Spanish Springs Area Plan* both cite a need for improvements to Pyramid to accommodate increased development in the Spanish Springs and northern Sparks area.



ITEM	LEVEL 1	LEVEL 2 2A 2B		LEVEL 3 [*]
Analysis Type	Qualitative P&N Analysis and Fatal Flow	Major Env. & Traffic Demand	Schematic ^{**} Design, Traffic, Env.	H/V Geometry, Traffic Ops, Detailed Env.
Design Level	Corridor Identification	"Fat" Line Concepts	Single Line Sketches	Up to 15 - percent H/V Alignments
Number of Alternatives	Numerous Alternatives	Several Alts.	Fewer Alts.	Few Alternatives
Decision Point ^{***}	<div>TAC</div> <div>July 08</div>	<div>TAC</div> <div>Sep 08</div>	<div>TAC</div> <div>Feb 09</div> <div>TAC</div> <div>May 09</div>	<div>TAC</div>

* The result of the Level 3 analysis is anticipated to be identification of a preferred alternative.

** Schematic design includes Quantum analysis.

*** TAC meetings are minimum. Additional TAC meetings are likely. Coordination w/ participating agencies will be ongoing

<div><div><div><div>RTC</div></div><div><div>PYRAMID HIGHWAY</div></div><div><div></div></div><div><div>US 395 CONNECTION</div></div></div></div> <div>Level One Screening (DRAFT)</div>																	
Alternative ID	Alternative Description																Comments
		Does the improvement meet the Need of serving growth areas?	Does the improvement meet the Need of improving east-west routes & access to Sparks and Spanish Springs?	Could the improvement meet the Need of alleviating congestion on Pyramid Highway?	Could the improvement meet the Need of alleviating plans for (1) the Pyramid Corridor? and (2) improving multimodal options?	Number of Purpose and Need Elements Met	Does the improvement have no irresolvable environmental impacts?	Does the improvement not have exorbitant costs?	Is the improvement use proven technology?	Is the improvement constructible?	Screen Out	Carry Forward as Supplementary Alternative	Carry Forward as Stand-Alone Alternative				
System Alternatives																	
S-1	No-Action	NO	NO	NO	NO	NO	NO	0	YES	YES	YES	YES			✓	By regulation, the No-Action Alternative is carried forward as an alternative and also serves for comparative analyses.	
S-2	Widening to Obtain LOS C	YES	NO	YES	YES**	NO	NO	3	YES	YES	YES	YES	✓			Does not improve east-west connections; does not respond to local corridor plans nor improve multimodal options	
S-3	Widening to Obtain LOS E	YES	NO	NO	YES**	NO	NO	2	YES	YES	YES	YES	✓			Does not improve east-west connections nor resolve congestion; does not respond to local corridor plans nor improve multimodal options	
S-4	Pedestrian and Bicycle Improvements	YES	NO	NO	NO	NO	YES	1.5	YES	YES	YES	YES		✓		Does not resolve congestion nor safety on Pyramid; nor improve east-west connections. Could be paired with a highway alternative. Carry forward as a supplementary alternative.	
S-5	TDM Improvements	YES	NO	NO	YES**	NO	YES	2.5	YES	YES	YES	YES		✓		Does not resolve congestion on Pyramid nor improve east-west connections; but could be paired with a highway alternative. Carry forward as a supplementary alternative.	
S-6	TSM Improvements (including Transit Enhancements)	YES	NO	NO	YES**	NO	YES	2.5	YES	YES	YES	YES		✓		Does not resolve congestion on Pyramid nor improve east-west connections; but could be paired with a highway alternative. Carry forward as a supplementary alternative.	
Transit Alternatives																	
T-1	Transit - Bus Rapid Transit	YES	NO	NO	YES**	NO	YES	2.5	YES	YES	YES	YES		✓		Does not resolve traffic congestion on Pyramid nor improve east-west connections, but could be paired with a managed lane highway alternative. Carry forward as a supplementary alternative.	
T-2	Transit - Regional Bus	YES	NO	NO	YES**	NO	YES	2.5	YES	YES	YES	YES		✓		Does not resolve traffic congestion on Pyramid nor improve east-west connections, but could be paired with a highway alternative. Carry forward as a supplementary alternative.	
T-3	Transit - Light Rail Transit on new alignment	YES	NO	NO	YES**	NO	YES	2.5	YES	YES	YES	YES	✓			Does not resolve traffic congestion nor improve east-west connections. Large costs and impacts to connect to downtown Reno, which does not reflect the purpose and need of this study.	
Alignment Alternatives																	
H-1	Pyramid Expressway/Arterial	YES	NO	YES	YES**	YES	NO	3.5	YES	YES	YES	YES	✓			Does not improve east-west connection; does not improve multimodal options. Has high community impacts.	
H-2	Pyramid Freeway	YES	NO	YES	YES**	YES	NO	3.5	YES	YES	YES	YES	✓			Does not provide east-west connection or improve multimodal options. Has high community impacts. A parallel alignment along Pyramid and other components of this alternative may still be considered in other alternatives.	
H-3	Pyramid/McCarran Freeways	YES	YES	YES	YES**	YES	NO	4.5	YES	YES	YES	YES			✓	Carry forward. May not resolve traffic congestion on south Pyramid Way. Note: Would need to be supplemented with multimodal improvement(s) to completely meet Purpose and Need.	
H-4	Sparks Boulevard Freeway	YES	NO	YES	YES**	YES	NO	3.5	YES	YES	YES	YES	✓			Does not provide east-west connection. Does not improve multimodal options. Has high community impacts. Traffic congestion remains on McCarran.	
H-5	West Sun Valley Freeway	YES	NO	NO	YES**	YES	NO	2.5	YES	YES	YES	YES	✓			Does not improve access to northern Sparks or provide an east-west connection, and does not resolve traffic congestion on Pyramid; does not improve multimodal options.	
H-6	Pyramid/McCarran/Wedekind Freeway	YES	YES	YES	YES**	YES	NO	4.5	YES	YES	YES	YES			✓	Carry forward. Note: Would need to be supplemented with multimodal improvement(s) to completely meet Purpose and Need.	
H-7	Pyramid/McCarran/Wedekind to Vista Freeways	YES	YES	YES	YES**	YES	NO	4.5	YES	YES	YES	YES			✓	Carry forward. Note: Would need to be supplemented with multimodal improvement(s) to completely meet Purpose and Need.	
H-8	East Sparks Corridor Freeway	NO	NO	NO	NO	NO	NO	0	YES	YES	YES	YES	✓			Screened out because it does not resolve traffic congestion nor improve safety on Pyramid; does not serve growth; does not address east-west connection; does not respond to local plans.	
H-9	US-395 to I-80 Freeway	NO	YES	NO	YES**	YES	NO	2.5	YES	YES	YES	YES	✓			Screened out because it does not resolve traffic congestion on Pyramid; does not serve growth areas; does not improve multimodal options. Some components are included in other alternatives.	
H-10	Pyramid and Sparks One Way Couplet	YES	NO	NO	YES**	YES	NO	2.5	YES	YES	YES	YES	✓			Does not resolve traffic congestion nor improve east-west connections; does not improve multimodal options.	
H-11	Pyramid and Rock One Way Couplet	YES	NO	NO	YES**	YES	NO	2.5	YES	YES	YES	YES	✓			Does not resolve traffic congestion nor improve east-west connections; does not improve multimodal options.	
H-12	Reversible lanes for Pyramid, Sparks and Vista Roadways	NO	NO	NO	YES**	YES	NO	1.5	YES	YES	YES	YES	✓			Does not resolve traffic congestion nor improve east-west connections; does not serve growth areas; does not improve multimodal options.	
H-13	US-395 to Pyramid Freeway	NO	YES	NO	YES**	YES	NO	2.5	YES	YES	YES	YES	✓			Screened out because it does not resolve traffic congestion on Pyramid; does not serve growth areas; does not improve multimodal options. Some components are included in other alternatives.	
H-14	US-395 to I-80, Wedekind, and Pyramid Freeways	YES	YES	YES	YES**	YES	NO	4.5	YES	YES	YES	YES			✓	Carry forward. Note: Would need to be supplemented with multimodal improvement(s) to completely meet Purpose and Need.	
H-15	US-395 to I-80 and Pyramid Freeways	YES	YES	YES	YES**	YES	NO	4.5	YES	YES	YES	YES			✓	Carry forward. Note: Would need to be supplemented with multimodal improvement(s) to completely meet Purpose and Need.	
H-16	US-395 to Vista and West Sun Valley Freeways	YES	YES	YES	YES**	YES	NO	4.5	YES	YES	YES	YES			✓	Carry forward. Note: Would need to be supplemented with multimodal improvement(s) to completely meet Purpose and Need.	
H-17	US-395 to Vista and Pyramid Freeways	YES	YES	YES	YES**	YES	NO	4.5	YES	YES	YES	YES			✓	Carry forward. Note: Would need to be supplemented with multimodal improvement(s) to completely meet Purpose and Need.	
H-18	US-395 to Vista, West Sun Valley, and Pyramid Freeways	YES	YES	YES	YES**	YES	NO	4.5	YES	YES	YES	YES			✓	Carry forward. Note: Would need to be supplemented with multimodal improvement(s) to completely meet Purpose and Need.	
H-19	US-395 to Vista, Pyramid, and Sparks Freeways	YES	YES	YES	YES**	YES	NO	4.5	YES	YES	YES	YES			✓	Carry forward. Note: Would need to be supplemented with multimodal improvement(s) to completely meet Purpose and Need.	
Lane Type Options to be Considered for the above Highway Alignment Alternatives*																	
L-1	General Purpose Lanes on new and/or improved facilities	YES	YES**	YES**	YES**	YES**	NO	4.5	YES	YES	YES	YES		✓		Carry Forward as a supplementary alternative. Build Alternatives should consider an option for General Purpose lanes.	
L-2	HOV Lanes on new and/or improved facilities	YES	YES**	YES**	YES**	YES**	YES	5	YES	YES	YES	YES		✓		Carry Forward as a supplementary alternative. Build Alternatives should consider an option for HOV facilities.	
L-3	Toll Lanes on new and/or improved facilities	YES	YES**	YES**	YES**	YES**	YES	5	YES	YES	YES	YES		✓		Carry Forward as a supplementary alternative. Build Alternatives should consider an option for Toll facilities. Needs state legislative action.	
L-4	Reversible Lanes	YES	YES**	YES**	YES**	YES**	NO	4.5	YES	YES	YES	YES		✓		Carry Forward as a supplementary alternative. Build Alternatives should consider an option for Reversible Lanes.	
L-5	HOT Lanes on new and/or improved facilities	YES	YES**	YES**	YES**	YES**	YES	5	YES	YES	YES	YES		✓		Carry Forward as a supplementary alternative. Build Alternatives should consider an option for HOT facilities. Needs state legislative action.	
L-6	FAIR Lanes on new and/or improved facilities	YES	YES**	YES**	YES**	YES**	YES	5	YES	YES	YES	YES		✓		Carry Forward as a supplementary alternative. Build Alternatives should consider an option for FAIR facilities. Needs state legislative action.	
L-7	Truck Lanes on new and/or improved facilities	YES	YES**	NO	YES**	YES**	NO	3.5	YES	YES	YES	YES	✓			Dedicated truck facilities would not resolve general purpose lane congestion on Pyramid; does not improve multimodal options.	

Level 2A Screening Summary

Screening Element		Traffic Demand and Performance							Environmental Impacts								Screen Out	Carry Forward as Supplementary Alternative	Carry Forward as Stand-Alone Alternative	Comments
Criterion		Travel Demand	East-West Connections	System Efficiency	Reduce Congestion	Travel Time	Study Area Level-of-Service	Local / Regional Plan Consistency	Relocations	Environmental Justice	Critical Habitat	Wetlands	Water Resources	Floodplains	Historic Resources	Parks and Open Space				
System Alternatives																				
S-1	No-Action																		✓	Carry forward per requirements.
S-4	Pedestrian and Bicycle Improvements																	✓		Not analyzed in Level 2A. Carry forward as supplemental.
S-5	TDM Improvements																	✓		Not analyzed in Level 2A. Carry forward as supplemental.
S-6	TSM Improvements (including Transit Enhancements)																	✓		Not analyzed in Level 2A. Carry forward as supplemental.
Transit Alternatives																				
T-1	Transit - Bus Rapid Transit																	✓		Not analyzed in Level 2A. Carry forward as supplemental.
T-2	Transit - Regional Bus																	✓		Not analyzed in Level 2A. Carry forward as supplemental.
Alignment Alternatives																				
H-3	Pyramid/McCarran Freeways	○	○	◐	○	○	◐	○	◐	◐	○	○	◐	◐	◐	◐	✓			Screen out due to similar performance as H-6 / H-7 but with more impacts.
H-6	Pyramid/McCarran/Wedekind Freeway	○	○	◐	○	○	◐	○	◐	◐	○	○	◐	◐	◐	◐			✓	Carry forward for additional analysis. Wedekind facility location to be studied further.
H-7	Pyramid/McCarran/Wedekind to Vista Freeways	○	○	◐	○	○	○	○	◐	◐	○	○	◐	◐	◐	◐			✓	Carry forward for additional analysis. Wedekind facility location to be studied further.
H-14	US-395 to I-80, Wedekind, and Pyramid Freeways	○	○	○	◐	○	◐	○	●	◐	○	○	◐	●	◐	◐	✓			Screen out due to numerous impacts on Vista Blvd. with little benefit.
H-15	US-395 to I-80 and Pyramid Freeways	○	○	○	◐	○	◐	○	●	◐	○	○	◐	●	◐	◐	✓			Screen out due to numerous impacts on Vista Blvd. with little benefit.
H-16	US-395 to Vista and West Sun Valley Freeways	◐	◐	○	○	◐	◐	○	◐	◐	○	○	◐	◐	●	●	✓			Screen out due to low demand and benefit of West Sun Valley compared to other alternatives.
H-17	US-395 to Vista and Pyramid Freeways	○	○	○	○	○	◐	○	◐	◐	○	○	◐	●	◐	◐			✓	Carry forward for additional analysis.
H-18	US-395 to Vista,West Sun Valley, and Pyramid Freeways	◐	◐	○	○	◐	◐	○	◐	●	○	○	●	●	●	●	✓			Screen out due to low demand and benefit of West Sun Valley compared to other alternatives.
Lane Type Options																				
L-1	General Purpose Lanes on new and/or improved facilities																	✓		Not analyzed in Level 2A. Carry forward for further analysis.
L-2	HOV Lanes on new and/or improved facilities																	✓		Not analyzed in Level 2A. Carry forward for further analysis.
L-3	Toll Lanes on new and/or improved facilities																	✓		Not analyzed in Level 2A. Carry forward for further analysis.
L-4	Reversible Lanes																	✓		Not analyzed in Level 2A. Carry forward for further analysis.
L-5	HOT Lanes on new and/or improved facilities																	✓		Not analyzed in Level 2A. Carry forward for further analysis.
L-6	FAIR Lanes on new and/or improved facilities																	✓		Not analyzed in Level 2A. Carry forward for further analysis.

Legend:

○

Best

◐

Good

◐

Fair

◐

Poor

●

Very Poor

Level 2B Screening Summary

Screening Element		Design & Traffic Considerations							Environmental Impacts								Screen Out	Carry Forward as Supplementary Alternative	Carry Forward as Stand-Alone Alternative	Comments
Criterion		Interchange Operability	Existing Road Network Cohesion	Interchange Spacing	Ability to Meet Design Criteria	Future Flexibility	Construction Traffic Control	Traffic Demand	Relocations	Environmental Justice	Critical Habitat	Wetlands	Water Resources	Floodplains	Historic Resources	Parks and Open Space				
System Alternatives																				
S-1	No-Action																		✓	Carry forward per requirements.
S-4	Pedestrian and Bicycle Improvements																	✓		Not analyzed in Level 2B. Carry forward as supplemental.
S-5	TDM Improvements																	✓		Not analyzed in Level 2B. Carry forward as supplemental.
S-6	TSM Improvements (including Transit Enhancements)																	✓		Not analyzed in Level 2B. Carry forward as supplemental.
Transit Alternatives																				
T-1	Transit - Bus Rapid Transit																	✓		Not analyzed in Level 2B. Carry forward as supplemental.
T-2	Transit - Regional Bus																	✓		Not analyzed in Level 2B. Carry forward as supplemental.
Alignment Alternatives																				
H-6w	Pyramid/McCarran/Wedekind Freeway (west)	☐	◐	◑	☐	◐	◑	○	◑	◑	○	○	◑	○	☐	◑	✓			Screen out due to impacts to McCarran Blvd and Sullivan Rd corridors, inability to accommodate future Spaghetti Bowl, and closure of Oddie interchange.
H-7w	Pyramid/McCarran/Wedekind to Vista Freeways (west)	☐	◐	◑	☐	◐	◑	○	◑	◑	○	○	◑	○	☐	◑	✓			Screen out due to impacts to McCarran Blvd and Sullivan Rd corridors, inability to accommodate future Spaghetti Bowl, and closure of Oddie interchange.
H-17s	US-395 to Vista and Pyramid Freeways (south)	☐	☐	◑	☐	☐	☐	○	◑	◑	○	○	○	☐	☐	◑			✓	Carry forward for additional analysis. Concerns with impacts to Sun Valley and University property to be further analyzed.
H-17n	US-395 to Vista and Pyramid Freeways (north)	☐	☐	☐	☐	☐	☐	☐	☐	◑	☐	○	○	☐	☐	◑			✓	Carry forward for additional analysis. Concerns with impacts to Sun Valley, other properties and Alturas power lines to be further analyzed.
Lane Type Options																				
L-1	General Purpose Lanes on new and/or improved facilities																	✓		Not analyzed in Level 2B. Carry forward for further analysis.
L-2	HOV Lanes on new and/or improved facilities																	✓		Not analyzed in Level 2B. Carry forward for further analysis.
L-3	Toll Lanes on new and/or improved facilities																	✓		Not analyzed in Level 2B. Carry forward for further analysis.
L-4	Reversible Lanes																	✓		Not analyzed in Level 2B. Carry forward for further analysis.
L-5	HOT Lanes on new and/or improved facilities																	✓		Not analyzed in Level 2B. Carry forward for further analysis.
L-6	FAIR Lanes on new and/or improved facilities																	✓		Not analyzed in Level 2B. Carry forward for further analysis.

Legend:

○

Best

☐

Good

◑

Fair

◐

Poor

◑

Very Poor



PYRAMID
HIGHWAY



US 395
CONNECTION

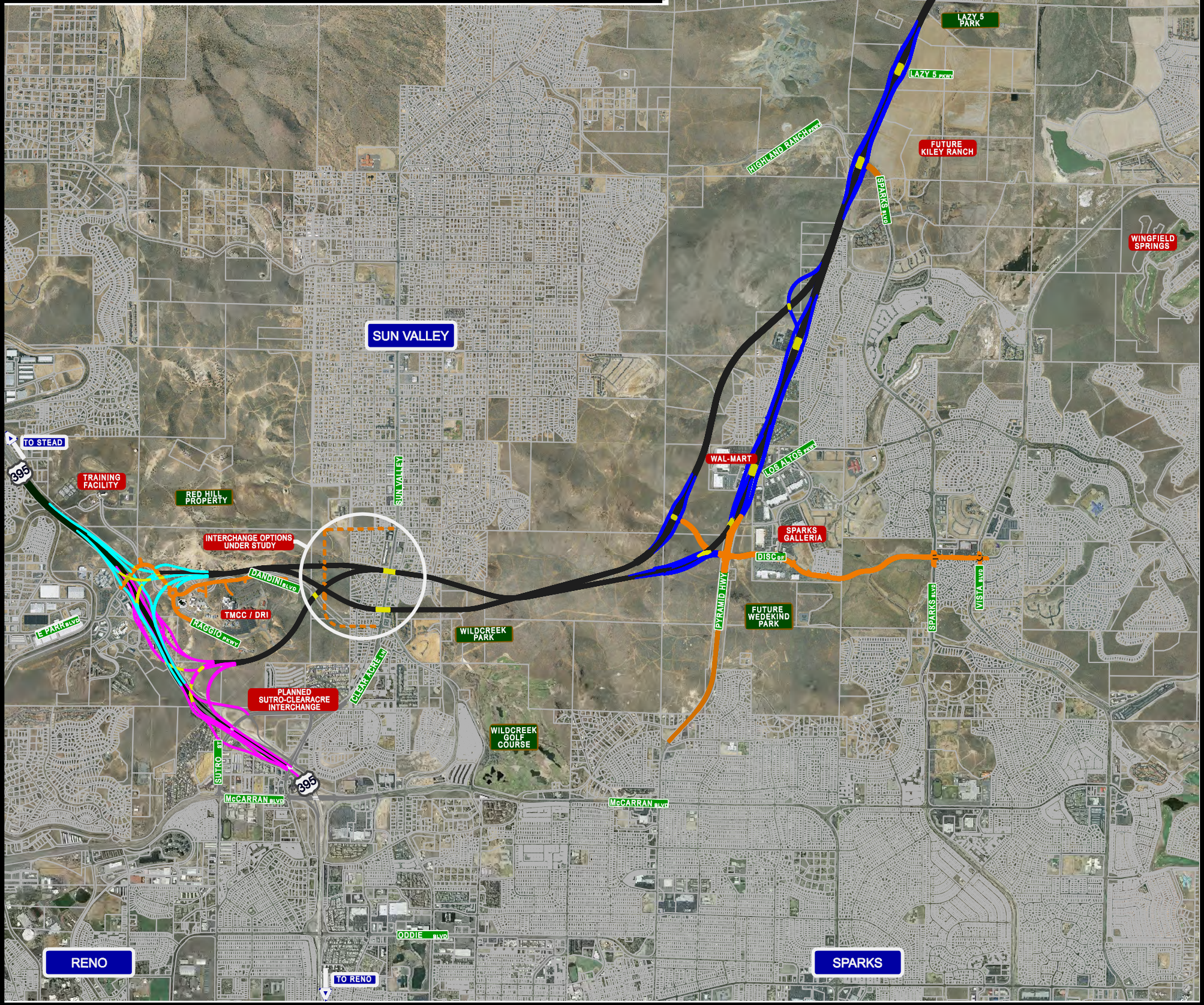
LEVEL 3 ALTERNATIVES
JANUARY 2010

PRELIMINARY
SUBJECT TO REVISION

- LEGEND:
- PRELIMINARY HIGHWAY ALIGNMENT
 - RAMPS / FRONTAGE ROADS
 - STRUCTURES
 - STREET ALIGNMENT / IMPROVEMENTS
 - AT PARR INTERCHANGE OPTION
 - SOUTH PARR INTERCHANGE OPTION



JACOBS





Meeting Minutes

Project: Pyramid Highway/US 395 Connection

Purpose: Technical Advisory Committee Meeting

Date Held: February 17, 2011

Location: NDOT District II Conference Room
310 Galletti Way, Sparks NV

Attendees:

FHWA (via teleconference):	Andrew Soderborg, Del Abdalla
RTC:	Doug Maloy, Tom Greco
NDOT:	Nathan Johnson, Chris Young
City of Reno:	Charla Honey
City of Sparks:	Jim Rundle
Washoe County:	Clara Lawson
TMRPA:	Sienna Reid
BLM:	N/A
Reno/Sparks Indian Colony:	N/A
Jacobs:	Bryan Gant, John Karachepone, Steve Oxoby, Chris Martinovich, Ben Taylor
CH2M HILL:	Cindy Potter, David Dodson, Mark Gallegos

Copies: Attendees, File, Amir Soltani, Anita Lyday, Carolyn Mulvihill, Denise Thompson, Hannah Visser, Howard Riedl, Julie Masterpool, Lee Gibson, Mike Fuess, Mike McCarley, Neil Krutz, Scott Gibson, Scott Nebesky, Amy Cummings

Summary of Discussion:

1. Welcome and Introductions – Bryan Gant

- Bryan Gant welcomed attendees, provided introductions, and gave a brief overview of the meeting agenda, goals and objectives. An agenda was distributed along with a table outlining previous TAC meeting dates and an overview of the outcomes of the previous meetings.
- Goal of today's TAC meeting is to provide a progress update and obtain additional TAC input to advance the Level 3 screening.
- During introductions, note was made by Chris Young/NDOT regarding Dan Nollsch's retirement. Chris has taken over Dan's role at NDOT.

2. Project Status Update – Bryan Gant

- Bryan Gant provided an update on the current status of the study.
- Additional traffic analysis has taken a little longer than expected which is why the TAC has not met since August 2010. Status of this analysis will be presented at today's meeting.
- To advance the Level 3 Screening, the team would like to reach consensus regarding feasibility of Sun Valley crossings and interchange locations and facility type at the northern end of Pyramid.
- Would like to reconvene the TAC on March 17, 2011 to discuss supplemental alternatives and close out the Level 3 screening so that work can begin on the Draft EIS.

3. Sun Valley Workshop/Public Outreach Effort – Cindy Potter

- Cindy provided an overview of the Sun Valley Workshop held on January 19, 2011, including format, community participation, outreach efforts leading up to the workshop to encourage participation, and general summary of the public comment received.
- Note was made that due to the success of the Sun Valley Workshop, a similar outreach effort will be initiated within the Pyramid corridor prior to the planned April 2011 public meeting to encourage public participation.
- Though there are still people opposed to the project, there appeared to be a number of people that see the potential benefit the project could bring to the community. Those that are in support expressed concern regarding impacts and mitigation strategies.
- There appeared to be a preference toward the southern crossing alignment (of Sun Valley Boulevard) in the area of El Rancho/Dandini intersection, particularly among business owners.
- There was a preference for an interchange at Sun Valley Boulevard among the existing businesses. However, for the general public, there was no clear preference between West Sun Valley and Sun Valley Boulevard interchange locations, only that access to the connector should be provided to/from Sun Valley.

4. Level 3 Screening Recap – Bryan Gant

- Bryan provided a brief overview of the Level 3 screening process, previous alternatives consensus items, and current findings/recommendations.
 - Elimination of US 395 system interchange alternatives north and south of Parr Boulevard. At-Parr interchange to be carried forward into DEIS.
 - Elimination of northern Sun Valley alignment in area of First Street. Crossings in area of Rampion and El Rancho/Dandini to be carried into DEIS.
 - Elimination of various Sun Valley interchange options with only tight-diamond or single point urban interchange (SPUI) at Sun Valley Boulevard and combination diamond/loop ramps at the West Sun Valley Arterial interchange being carried forward into the DEIS.
 - On-, off-, and ridge Pyramid alignments to be carried forward into the DEIS as each is considered to be viable. Since these alignments are all within the City of Sparks Sphere of Influence, the team will be meeting with Sparks Parks and Recreation and Planning staff.
 - Cut/fill lines were forwarded to TAC after last meeting for on-, off-, and ridge alignments for review. No comments were received in the interim or at today's meeting.
 - Pyramid on-alignment alternative with frontage roads in the area of commercial developments between Disc Drive and Los Altos will be carried forward into the DEIS.
 - Split diamond alternative on Pyramid from Sparks Boulevard to Lazy 5 will be carried forward into DEIS.
 - Split diamond interchange with frontage roads between Dolores and Eagle Canyon stands out as the most feasible alternative due to balancing ROW impacts and providing access to existing and future locations and will be carried forward into the DEIS.

5. Level 3 Traffic Analysis – John Karachepone

- John provided an overview of the traffic analysis performed using the Interim Consensus Forecast data.
- Primary focus of the analysis was peak hour projections for the 2030 model-year horizon. 2035 is the project design-year horizon.
- Both no-build and build forecasts were generated.
 - Analysis indicates that the Pyramid/US 395 connection project will be necessary to meet projected traffic volumes. Without the east/west connection provided by the project, several regional roadways fail, due to heavy congestion.
 - The projected volumes for the 2035 design-year indicate the need for a 6-lane freeway connector facility to serve traffic volumes.
 - The volume on the system-to-system interchange at US 395 suggests the need for a 10-lane configuration on US 395 to be extended at least to the connector instead of ending at McCarran Blvd as currently planned in the RTP to serve this additional traffic.
 - The model projects there is sufficient east/west demand to provide a full service interchange in Sun Valley.

- The model identifies the need for improvements on Pyramid Highway to extend south of Disc to McCarran Boulevard to serve projected demand. This would include matching into planned intersection improvements at Pyramid/McCarran with a 6-lane divided arterial from Los Altos south to McCarran (assuming an off-alignment freeway improvement alternative is selected as the preferred alternative) or from Disc south to McCarran (if an on-alignment is selected).
- Disc Drive east to Vista would also need to be improved to a 6-lane arterial to serve projected demand.
- The model also indicates a 6-lane freeway would be required to meet demand north to Lazy 5 with a 6-lane freeway or expressway from Lazy 5 to La Posada and/or Eagle Canyon. Further traffic analysis will be performed to determine how best to transition to a lower order facility north to Calle de la Plata.

6. Sun Valley Crossings/Interchange Alternatives – Ben Taylor

- Ben provided an overview of the crossing and interchange alternatives within Sun Valley including potential benefits and challenges of each.
- In December 2010, a design review meeting was held with NDOT roadway division. Several facets of the overall design including plan, profiles, and sections of the proposed roadways were presented and comments requested. There were some preliminary comments received from NDOT regarding ramp and mainline grades. The team is addressing these comments and reducing these grades to some extent. Additional comments are forthcoming and will be addressed appropriately.
- Operational challenges presented by the southern crossing's proximity to the El Rancho/Dandini intersection have been addressed by moving the mainline a little further north as well as widening Sun Valley Boulevard within this area. These changes would give the space needed to provide adequate storage for the high-volume left hand turns both onto the connector and onto El Rancho with both the tight diamond and SPUI interchange layouts at Sun Valley Boulevard. Based on these changes, it is felt that the southerly crossing is a geometrically feasible alternative.
- CORSIM analysis will provide additional data needed to determine which crossing/interchange alternative(s) perform best and if there are any fatal flaws operationally with any of the alternatives.

7. Environmental Update – Bryan Gant

- WCRM has completed their archeological walk-through ground survey.
- Approximately 130 sites have been identified which fall into 3 primary categories.
 - Trash scatters (the bulk of the sites fall into this category)
 - Mining activity
 - Historic ditches (one ditch was located that was never completed)
- There were no findings of archeological significance that would affect alternative alignment selection.
- Detailed archeological recordation will be deferred until a preferred alternative has been selected in order to minimize the study footprint. This has been discussed with FHWA and there will also be a meeting with SHPO to make sure there is concurrence on this proposed approach.
- Work continues on an open space parcel within Sun Valley to preserve a joint recreational and transportation use (the County is currently only interested in using the southern portion of this parcel as a trailhead whereas the Team is interested in maintaining the northern section for transportation use).

8. Consensus Items

- ***The team will continue to look at high-order expressway/freeway facility at the north end of the study limits along Pyramid Highway. This alternative will be further refined and carried into the DEIS.***
- ***Northern (at Rampion) and southern (north of El Rancho/Dandini) Sun Valley crossings and interchange options at Sun Valley Boulevard and the future West Sun Valley Arterial will be carried forward into the DEIS as no fatal flaws have been identified with any of the 4 configurations.***
- ***Pyramid Highway on-, off-, and ridge alignments will be carried forward into the DEIS.***

9. Next Steps – Bryan Gant/Cindy Potter

- TAC will meet in March to discuss alternatives. Decisions on which of these alternatives will be carried forward into the DEIS will be made during the March meeting.
- SWG will be scheduled in March to update the group on the study progress and alternatives being carried forward into the DEIS as well as to obtain their feedback prior to the next public meeting to be held in April.
- The Team will be presenting its findings to the NDOT Front Office, RTC Board, City Councils, and Washoe County Commission during late March/early April. The team requests that the TAC advise if meetings should be set-up with any department heads prior to these presentations.
- The team will also be presenting to the RTC TAC and CAC in March.
- Additional business and EJ outreach within the Pyramid corridor will be initiated leading up to the April public meeting. There will also be additional discussion on how to notice the Sun Valley area in order to promote their involvement at the next public meeting.
- The public meeting in April will be primarily to provide information to the public on what alternatives will be carried into the DEIS, preparation schedule for the DEIS, and how the DEIS will be distributed for public review and comment.

10. Q & A

Q: *Has the next workshop/public meeting been scheduled?*

A: *We do not have a date set, but the team is looking at late April. This will be a public meeting heading into the Draft EIS and is anticipated to be held at Lazy 5 in Spanish Springs. Additional outreach within the Pyramid corridor is planned leading up to this public meeting.*

Q: *The Sun Valley community has historically preferred that Sun Valley Boulevard be maintained as a lower volume arterial with the majority of the through traffic encouraged to use the West Sun Valley Arterial. Wouldn't this suggest a preference for an interchange to be located at West Sun Valley?*

A: *Generally speaking, businesses tend to prefer an interchange at Sun Valley Boulevard while the more established local residents tend to prefer an interchange at West Sun Valley.*

Q: *What is the distance between El Rancho/Dandini and the southern ramps for the interchange at Sun Valley Boulevard with the southern crossing?*

A: *Approximately 400 feet with the SPUI configuration.*

Q: *What is the east/west distance between Sun Valley Boulevard and the West Sun Valley Arterial?*

A: *Approximately 2300 feet.*

12. Comments

Note was made regarding the differences between freeway and expressway facilities. Both facilities provide a high-order of access control with a freeway facility being the more restrictive of the two. Expressways allow for a limited number of signalized, at-grade, high traffic intersections along the facility and/or right-in/right-out movements.

Clarification was provided regarding the connector interchange alternatives within Sun Valley. There would be either an interchange at Sun Valley Boulevard or at the future West Sun Valley Arterial, not at both locations.

Request was made that Neil Krutz be informed of the Team's intent to go before the Sparks City Council in April and to work through Neil to get the project on the Sparks City Council agenda.

Charla Honey will continue to facilitate the process of getting on the Reno City Council agenda.

Clara Lawson will facilitate the process of getting onto the Washoe County Commission agenda. Requests a lead time of 1 month to get through this process (County Commission is down to 2 meetings per month).

Note was made that the City Councils prefer to have any presentations be brief (3-5 minutes).

Nathan Johnson will assist in coordinating meeting with NDOT Front Office.

Chris Young would like to be involved in the SHPO meeting regarding archeological recordation.

TAC presentation materials and exhibits will be forwarded to FHWA for review.

NOTE: The Next TAC meeting will be held March 17, 2011 from 1:30-4:00pm at the NDOT District II conference room.

Meeting adjourned at 3:00 p.m.

Attachment A

Attendance Roster

Pyramid Highway US 395 Connection

TAC MEETING # 12 FEBRUARY 17, 2011

NDOT DISTRICT OFFICE CONFERENCE ROOM

NAME	ORGANIZATION	TELEPHONE #	EMAIL
John Karachepone	JACOBS	702 938 5508	John.Karachepone@Jacobs.com
Chris Young	NDOT-ENV.	775-888-7688	cyoung@dot.state.nv.us
Charla Honey	City of Reno	775 334 2191	honeyc@reno.gov
Jim RUNDLE	CITY OF SPARKS		jrundle@cityofsparks.com
Sienna Reid	TMRPA		sreid@tmrpa.org
David Dalsen	CH2M HILL	775-329-7300	david.dalsen@ch2m.com
Mark Gallegos	CH2M HILL	329 7300	MGALLEGRO@CH2M.COM
Chris Martynovich	JACOBS	850-5105	christopher.martynovich@jacobs.com
Nathan Johnson	NDOT-PM	(775) 888-7319	njohnson2@dot.state.nv.us
Gindy Potter	CH2M HILL	329-7300	cpotter@ch2m.com
Bryan Gant	JACOBS	775 850 5100	bryan.gant@jacobs.com
Ben Taylor	JACOBS	(702) 938-5477	ben.taylor@jacobs.com
Steve Oxoby	JACOBS	775 850-5108	STEVE.OXOBY@JACOBS.COM
James Mauer	RTC	775-335-1865	jmauer@rtcwashoe.com
Tom Greco	RTC	541-7771	
Clara Lewis	WC	3	

Attachment B
Presentation Slides

TAC meeting #12

February 17, 2011

JACOBS



**PYRAMID
HIGHWAY**



**US 395
CONNECTION**



Goal:

**Advance Level 3 Screening and Provide an Update of
Public Outreach Activities.**

TAC No.	Date	Outcome
1	2-21-08	<ul style="list-style-type: none"> ▪Reviewed the Project's Goals (Purpose and Need) ▪Overview of the Project Process and TAC Responsibilities ▪Discuss Needs in the Corridor to Support Purpose and Need Development
2	4-17-08	<ul style="list-style-type: none"> ▪Reviewed Existing Traffic Collection Data ▪Update on the 2040 Regional Transportation Plan by RTC ▪Discussion Regarding the Results of the April, 2008 Public Meeting
3	7-17-08	<ul style="list-style-type: none"> ▪Further Reviewed and Discussed Purpose and Need Elements ▪Determined the Range of Project Alternatives ▪Discussed Concept Screening Methodology and Process
4	9-18-08	<ul style="list-style-type: none"> ▪Reviewed, Discussed, and Completed Level 1 Concept Screening
5	1-15-09	<ul style="list-style-type: none"> ▪Overview of Level 2A Screening and Criteria ▪Preliminary Traffic Findings ▪Identification of April 2009 Public Meeting
6	2-19-09	<ul style="list-style-type: none"> ▪Traffic and Environmental Analysis Results ▪Level 2A Screening Review and Completion
7	5-21-09	<ul style="list-style-type: none"> ▪Engineering, Traffic, and Environmental Analysis Results ▪Level 2B Screening Review and Completion
8	7-16-09	<ul style="list-style-type: none"> ▪Right-of-Entry Footprint Review and Determination
9*	10-15-09	<ul style="list-style-type: none"> ▪Detailed Review and Preliminary Screening of Initial "H17" Concept Alternatives ▪Confirmed Alternatives for Detailed Level 3 Screening Analysis
10	1-21-10	<ul style="list-style-type: none"> ▪Traffic Forecasting Results for Level 3 Screening** ▪Interim Level 3 Screening Review
11	8-19-10	<ul style="list-style-type: none"> ▪Reviewed / confirmed progress to date and discussed project horizon year ▪Screened out the South-of-Parr interchange (Level 3) ▪Discussed Pyramid off-alignment alternatives (none screened)

ITEM	LEVEL 1	LEVEL 2		LEVEL 3 [*]
		2A	2B	
Analysis Type	Qualitative P&N Analysis and Fatal Flow	Major Env. & Traffic Demand	Schematic Design, Traffic, Env. ^{**}	H/V Geometry, Traffic Ops, Detailed Env.
Design Level	Corridor Identification	"Fat" Line Concepts	Single Line Sketches	Up to 15 - percent H/V Alignments
Number of Alternatives	Numerous Alternatives	Several Alts.	Fewer Alts.	Few Alternatives
Decision Point ^{***}	TAC ^{July 08}	TAC ^{Sep 08}	TAC ^{Feb 09}	TAC ^{May 09}

- ❑ January 19, 2011 at the Sun Valley Neighborhood Center
- ❑ 118 Residents and Elected Officials in attendance
- ❑ Light meal was provided to encourage greater attendance
- ❑ Good mix of attendees, but had hoped for greater representation from EJ groups
- ❑ Aggressive effort prior to meeting



- ❑ Open-house format
- ❑ Six “themed” stations with display boards
- ❑ Each station manned by RTC and consultant representatives to answer questions and take comments
- ❑ Primary focus of Study Team: “We are here to listen to your thoughts and concerns.”



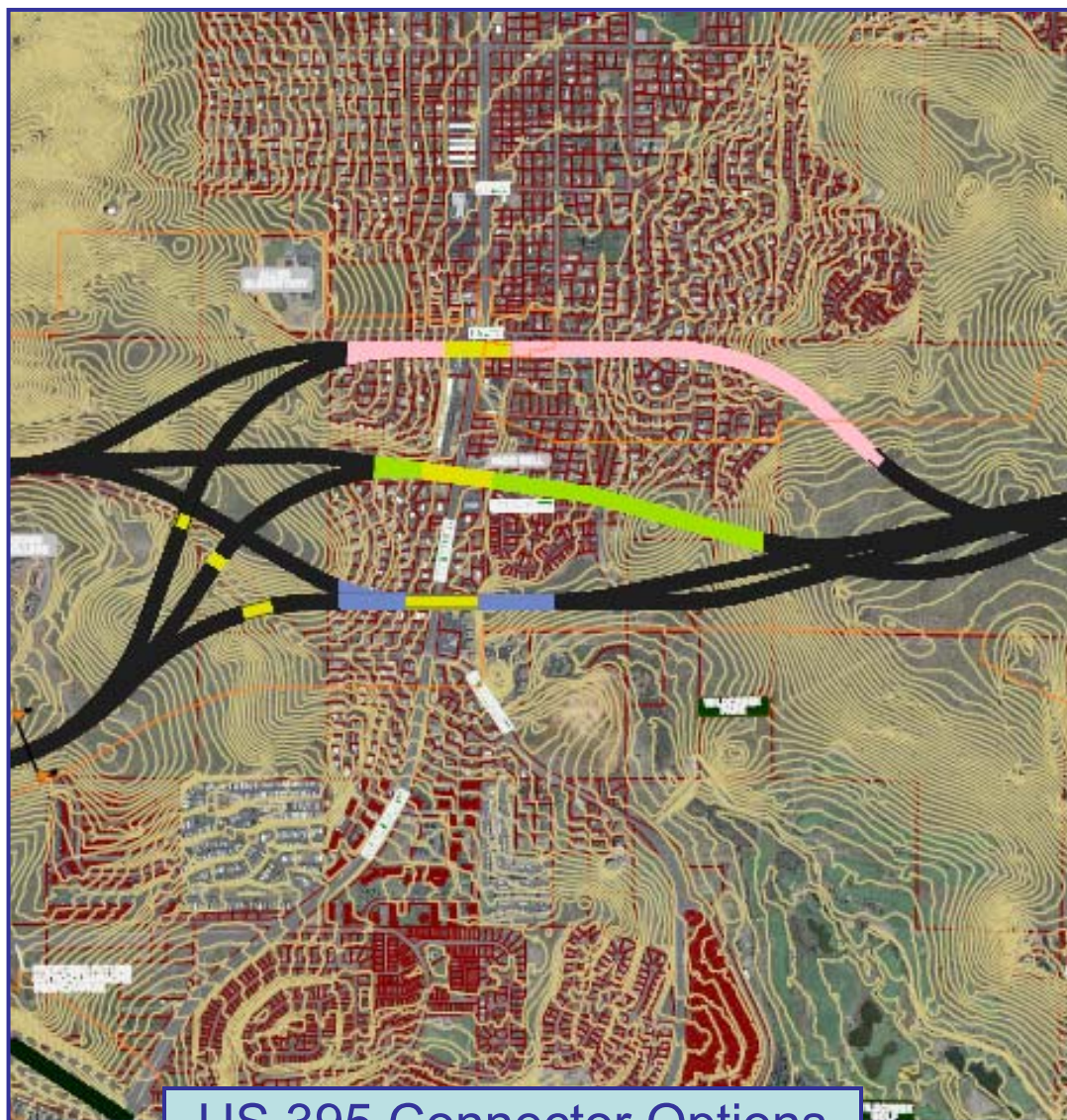
- ❑ A few were opposed to the project, but overall attendees saw benefits and opportunities for their community
- ❑ Most were generally in support of the project but expressed concerns regarding impacts and mitigation strategies
- ❑ Opinion was split between northern and southern crossings, but preference appeared to lean toward the southern crossing



- ❑ No clear preference regarding interchange location (SV Blvd vs. West SV Arterial) – only that access to connector be provided to/from Sun Valley
- ❑ Overall attendees appreciated being involved in the process and felt they were being heard



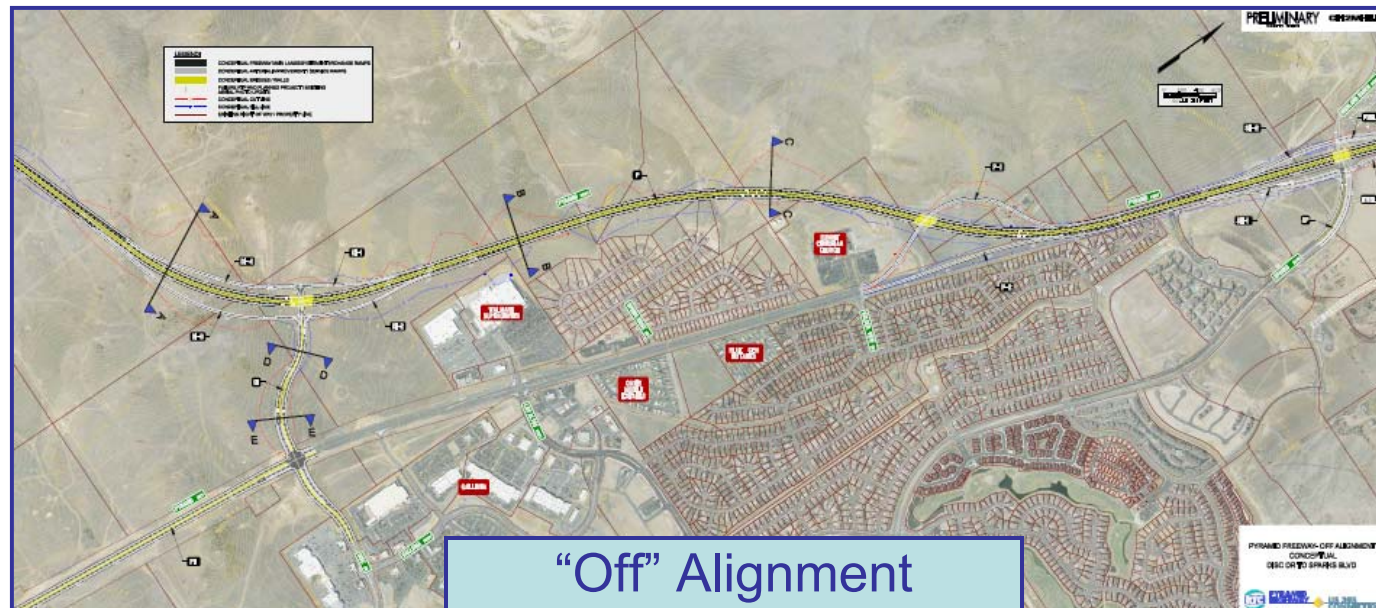
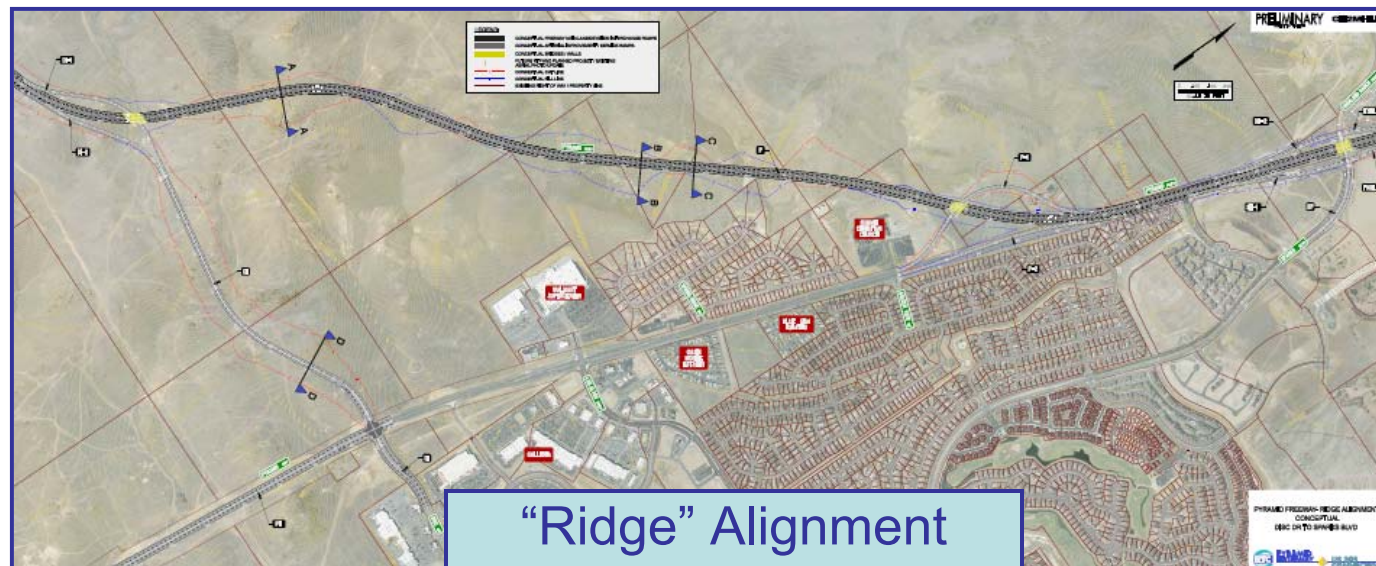




US 395 Connector Options

SUN VALLEY INTERCHANGE OPTIONS

TYPE	LOCATION	COMMENTS / STATUS
Tight Diamond	Sun Valley	Either Crossing
Tight Diamond	West S.V.	Ramps too Steep X
Split Diamond	Both	Frontage Rds. too Steep X
ParClo	Sun Valley	Unsafe Downhill Speed ▲ X
ParClo	West S.V.	Unsafe Downhill Speed ▲ X



- ❑ Proximity to trip origins / destinations
- ❑ Visual impacts greater with the Off alignment
- ❑ Ridge alignment bisects open space
- ❑ Disc requires longer extension to Ridge alignment
- ❑ Commercial visibility a minor issue
- ❑ Noise walls vs visibility may be a debate



- ❑ Ridge alignment could use NB ramps
- ❑ Ridge alignment may attract more development
- ❑ Within the City of Sparks sphere of influence
- ❑ Show cut/fill lines

All Alignments Pass Level 3







PYRAMID
HIGHWAY



US 395
CONNECTION

Level 3 Screening Review

FACILITY TYPE TRANSITION

Freeway Ends at Lazy 5 Pkwy, Arterial to North

X

Freeway Ends at Lazy 5 Pkwy, Expressway to Eagle Canyon

Freeway Ends at Eagle Canyon

Freeway Ends at Egyptian Drive

X

Reconsidered
with new
model

EAGLE CANYON INTERCHANGE OPTIONS

EAGLE CANYON	DOLORES	CONNECTION
ParClo AB	Diamond	2-way FR X
Diamond	Diamond	1-way FR w/ Slips X
Split Diamond	Split Diamond	FR w/o Slips
N.E. Loop	Diamond	1-way FR X
S.E. Loop	Diamond	2-way FR to R. James X
N.E. Loop	Diamond	None X
Diamond	Diamond	None X

- ❑ Based on RTC's Travel Demand Model
 - ❑ Subarea (project influence area) checks and updates
 - ❑ Model horizon year 2030
- ❑ Focus on Peak Hour Projections
- ❑ Design Hour Volumes Developed
 - ❑ Design Year is 2035
 - ❑ No-Build Forecast
 - ❑ Build Alternative Forecast reflecting Demand Volumes

- ❑ Need for US 395 Connector Confirmed
- ❑ In Design Year, 6-Lane Freeway Indicated
- ❑ Connection at US 395 to be designed to accommodate Connector Volumes
- ❑ Interchange at Sun Valley meets demand from Sun Valley Community



- ❑ Need for Improvements to Pyramid Highway south of Connector Confirmed
 - ❑ McCarran Intersection needs improvements to meet this increased demand volume
- ❑ 6-Lane Divided Arterial indicated in Design Year from Los Altos Parkway to south of Queen Way
- ❑ 6-Lane Divided Arterial indicated for Disc Drive



- ❑ Need for Improvements indicated to Calle De La Plata
- ❑ 6-Lane Freeway Required to Lazy Five
- ❑ 6-Lane Freeway Indicated to Eagle Canyon / La Posada
- ❑ Several options could work to transition to 2-Lane highway north of Calle de La Plata





**PYRAMID
HIGHWAY**



**US 395
CONNECTION**

Facility Type Transition – North End

Option 1:

6-Lane Freeway transitions to 6-Lane Divided Arterial north of Eagle Canyon, and to 4-Lane Divided Arterial north of Egyptian Drive / Sunset Springs Lane

Option 2:

6-Lane Freeway to Delores, 4-Lane Freeway with Frontage roads north of Delores to Eagle Canyon; 4-Lane Freeway transitions to 6-Lane Divided Arterial north of Eagle Canyon / La Posada

Option 3:

6-Lane Freeway transitions to 6-Lane Expressway north of Lazy 5 to north of Eagle Canyon / La Posada

Conclusions:

Higher order facility type is required to Eagle Canyon / La Posada.

Refinements of this facility after Level 3.

Configurations

- ❑ Northern Crossing
 - ❑ SPUI or TUDI at Sun Valley Blvd.
 - ❑ Loop Ramps at West Sun Valley Arterial
- ❑ Southern Crossing
 - ❑ SPUI or TUDI at Sun Valley Blvd.
 - ❑ Loop Ramps at West Sun Valley Arterial

Benefits

- ❑ Northern Crossing
 - ❑ Follows an existing power line corridor
 - ❑ Mainline grades are slightly flatter (~0.4%)
- ❑ Southern Crossing
 - ❑ Bluff to east of SVB provides natural support thus requiring less fill
 - ❑ Utilizes more open space thus requiring acquisition of only 20-40 parcels
 - ❑ Requires minimal improvement to perpetuate local access
 - ❑ Preferred by community based on workshop feedback

Challenges

- ❑ Northern Crossing
 - ❑ Requires substantial improvement to perpetuate local access
 - ❑ Requires acquisition of approx. 60-80 parcels
 - ❑ Ramp grades at or near 8% (analyzing <7%)
- ❑ Southern Crossing
 - ❑ Mainline grades are steeper nearing 6%
 - ❑ Ramp grades at or near 8% (analyzing <7%)
 - ❑ Proximity to the existing Dandini/El Rancho Intersection

Viability/Feasibility

- ❑ Northern Crossing-YES
 - ❑ Pending NDOT comments & CORSIM

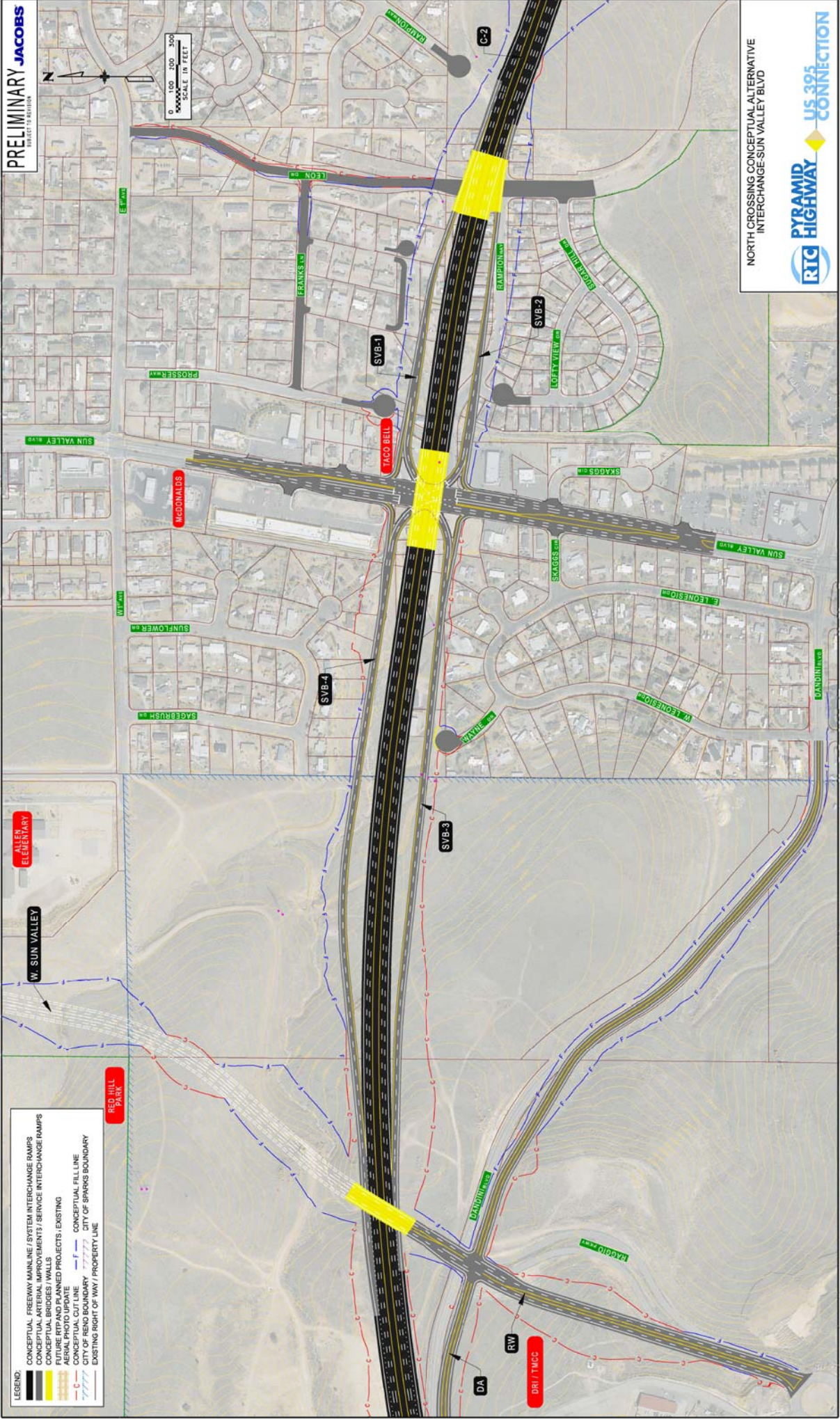
- ❑ Southern Crossing-YES
 - ❑ Changes to Intersection layout promotes feasibility with Dandini/El Rancho Intersection
 - ❑ Pending NDOT comments & CORSIM

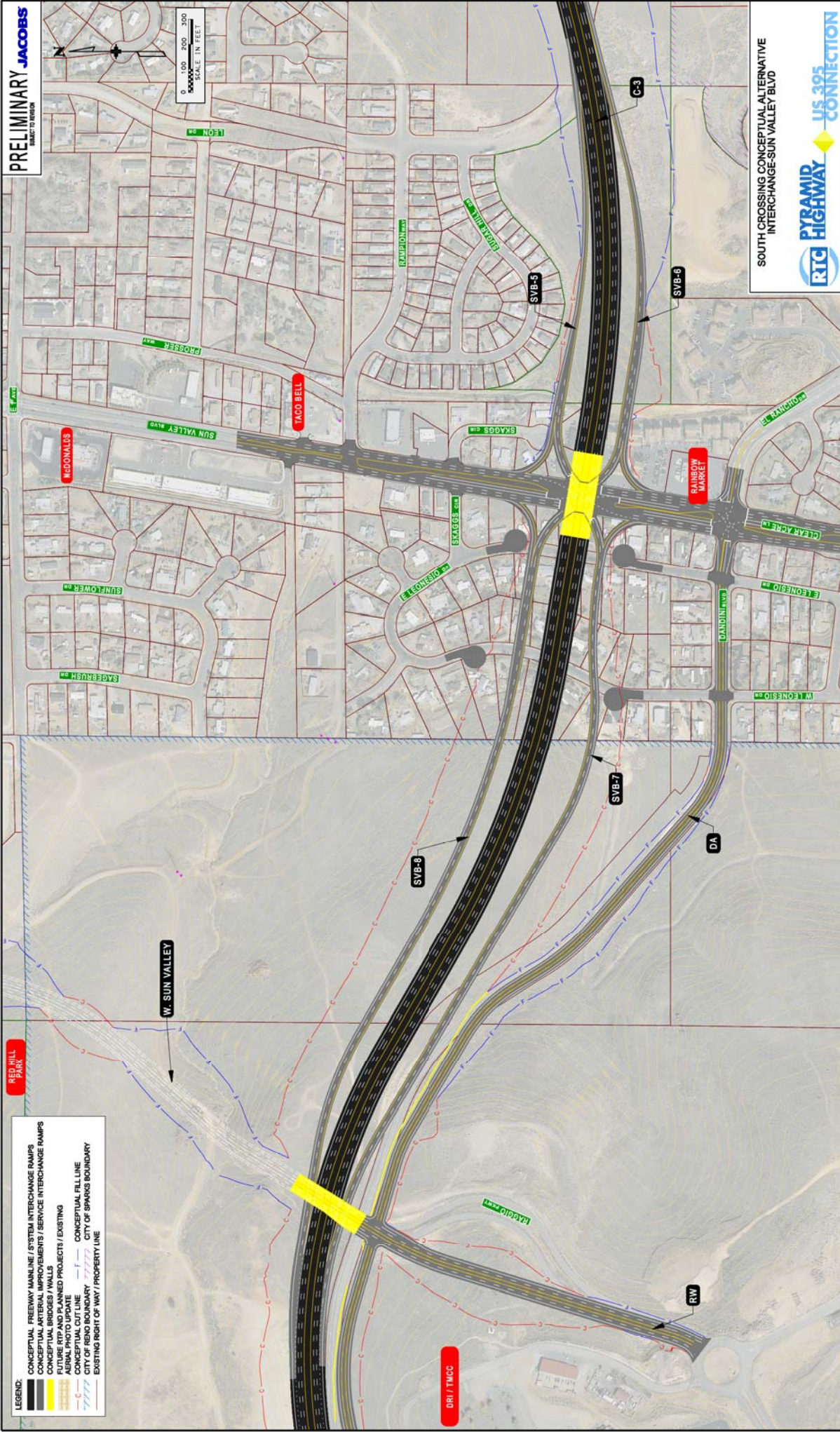
Upcoming Outreach Activities

	JAN	FEB	MAR	APR
Public Mtg.	Sun Valley Workshop 1/19			Spanish Springs Workshop
Grassroots		Sun Valley		Pyramid Corridor
TAC		2/11	3/11	
SWG			3/12	
NDOT			3/12	
City/County				Workshop Sparks Blvd 4/5 4/5 4/11
RTC Board			3/12	
RTC TAC			3/12	
RTC CAC			3/12	

Attachment C
Meeting Displays

- LEGEND:**
- CONCEPTUAL FREEWAY MAINLINE / SYSTEM INTERCHANGE RAMP
 - CONCEPTUAL ARTERIAL IMPROVEMENTS / SERVICE INTERCHANGE RAMP
 - CONCEPTUAL BRIDGES / WALLS
 - CONCEPTUAL EXISTING PROJECTS / EXISTING
 - AERIAL PHOTO UPDATE
 - CONCEPTUAL HILL LINE
 - CONCEPTUAL CUT LINE
 - CITY OF RENO BOUNDARY
 - CITY OF SPARKS BOUNDARY
 - EXISTING RIGHT OF WAY / PROPERTY LINE

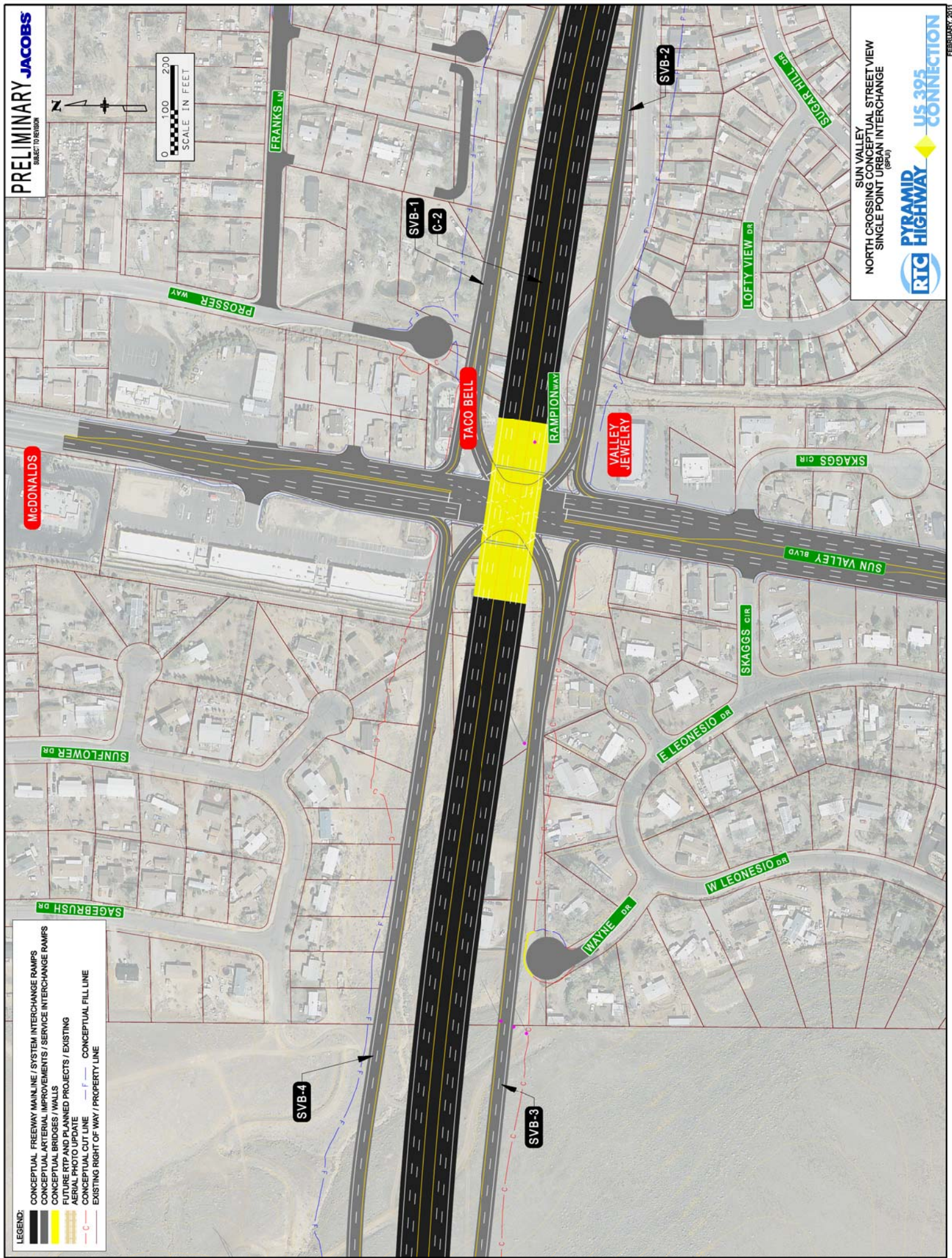




- LEGEND:
- CONCEPTUAL FREEWAY MAINLINE / SYSTEM INTERCHANGE RAMPS
 - CONCEPTUAL ARTERIAL IMPROVEMENTS / SERVICE INTERCHANGE RAMPS
 - CONCEPTUAL BRIDGES / WALLS
 - FUTURE RTP AND PLANNED PROJECTS / EXISTING
 - AERIAL PHOTO UPDATE
 - CONCEPTUAL CUT LINE
 - CONCEPTUAL FILL LINE
 - EXISTING RIGHT OF WAY / PROPERTY LINE



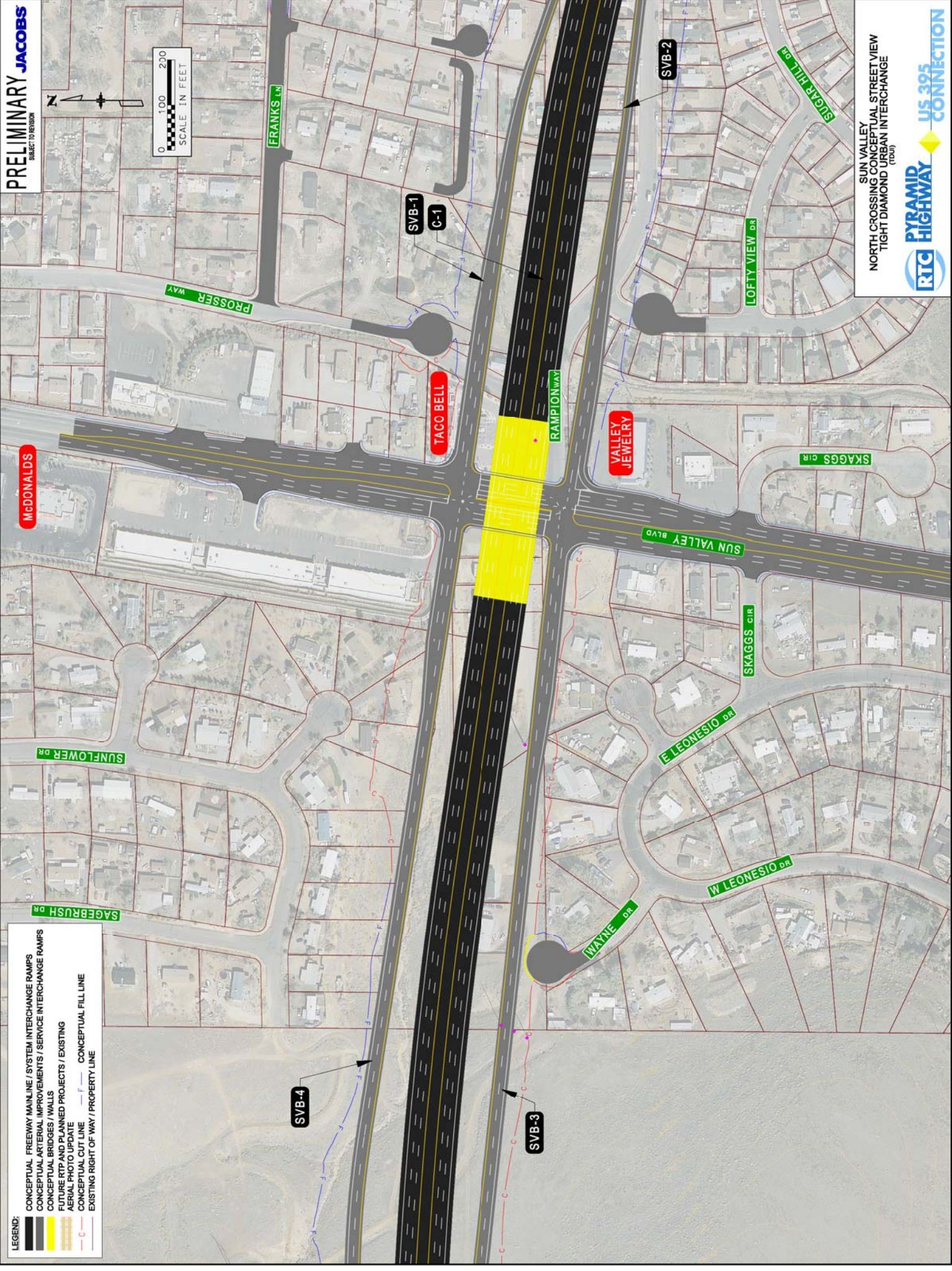
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SCALE IN FEET



SUN VALLEY
NORTH CROSSING CONCEPTUAL STREET VIEW
SINGLE POINT URBAN INTERCHANGE
(SPUI)



- LEGEND:**
- CONCEPTUAL FREEWAY MAINLINE / SYSTEM INTERCHANGE RAMPS
 - CONCEPTUAL ARTERIAL IMPROVEMENTS / SERVICE INTERCHANGE RAMPS
 - CONCEPTUAL BRIDGES / WALLS
 - FUTURE RTP AND PLANNED PROJECTS / EXISTING
 - AERIAL PHOTO UPDATE
 - CONCEPTUAL CUT LINE
 - CONCEPTUAL FILL LINE
 - EXISTING RIGHT OF WAY / PROPERTY LINE



SUN VALLEY
NORTH CROSSING CONCEPTUAL STREET VIEW
TIGHT DIAMOND URBAN INTERCHANGE
(RDU)



TACO BELL

RAMPION WAY

VALLEY JEWELRY

SKAGGS CIR

SKAGGS CIR

SUN VALLEY BLVD

SKAGGS CIR

E LEONESIO DR

WAYNE DR

RAINBOW MARKET

CLEAR ACRE LN

E LEONESIO DR

DANDIN BLVD

W LEONESIO DR

EL RANCHO DR

SVB-8

SVB-7

SVB-6

C-3

SVB-5

DA

- LEGEND:**
- CONCEPTUAL FREEWAY MAINLINE / SYSTEM INTERCHANGE RAMPS
 - CONCEPTUAL ARTERIAL IMPROVEMENTS / SERVICE INTERCHANGE RAMPS
 - CONCEPTUAL BRIDGES / WALLS
 - FUTURE RTP AND PLANNED PROJECTS / EXISTING
 - AERIAL PHOTO UPDATE
 - CONCEPTUAL CUT LINE
 - CONCEPTUAL FILL LINE
 - EXISTING RIGHT OF WAY / PROPERTY LINE

SUN VALLEY
SOUTH CROSSING CONCEPTUAL STREET VIEW
SINGLE POINT URBAN INTERCHANGE
(SPUI)



TACO BELL

RAMPION WAY

VALLEY JEWELRY

SKAGGS CIR

SKAGGS CIR

E LEONESIO DR

WAYNE DR

SUN VALLEY BLVD

LOFTY VIEW DR

SHUGR HILL DR

SVB-5

C-3

SVB-6

RAINBOW MARKET

E LEONESIO DR

E LEONESIO DR

W LEONESIO DR

DANDIN BLVD

CLEAR ACRE LN

EL RANCHO DR

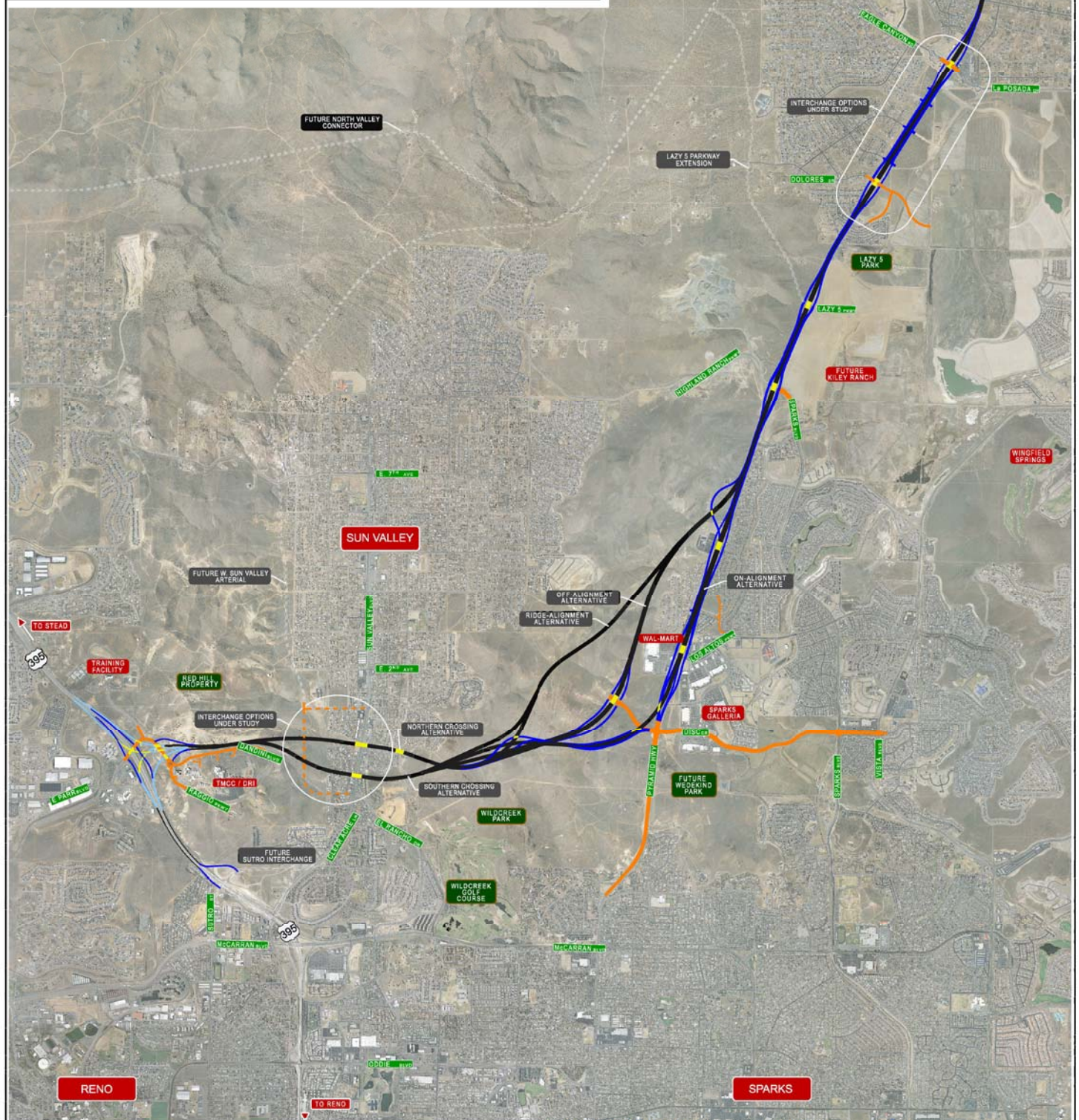
SVB-7

SVB-8

DA

- LEGEND:**
- CONCEPTUAL FREEWAY MAINLINE / SYSTEM INTERCHANGE RAMPS
 - CONCEPTUAL ARTERIAL IMPROVEMENTS / SERVICE INTERCHANGE RAMPS
 - CONCEPTUAL BRIDGES / WALLS
 - FUTURE RTP AND PLANNED PROJECTS / EXISTING
 - AERIAL PHOTO UPDATE
 - CONCEPTUAL CUT LINE
 - CONCEPTUAL FILL LINE
 - EXISTING RIGHT OF WAY / PROPERTY LINE

SUN VALLEY
SOUTH CROSSING CONCEPTUAL STREET VIEW
TIGHT DIAMOND URBAN INTERCHANGE
(TOD)



Meeting Minutes

Project: Pyramid Highway/US 395 Connection

Purpose: Technical Advisory Committee Meeting

Date Held: March 17, 2011

Location: NDOT District II Conference Room
310 Galletti Way, Sparks NV

Attendees:

RTC:	Doug Maloy, Chris Louis, Tom Greco
FHWA:	Andrew Soderborg
NDOT:	Randy Travis, Steve Cooke (via teleconference)
City of Reno:	Charla Honey
City of Sparks:	Jim Rundle, Jon Ericson
Washoe County:	Clara Lawson
Reno/Sparks Indian Colony:	Scott Nebesky
Jacobs:	Bryan Gant, Chris Primus, Steve Oxoby, Chris Martinovich
CH2M HILL:	Cindy Potter, David Dodson, Mark Gallegos

Copies: Attendees, File, Del Abdalla, Amir Soltani, Andrew Soderborg, Anita Lyday, Ben Taylor, Carolyn Mulvihill, Chris Young, Denise Thompson, Hannah Visser, Jeff Hale, Jim Clarke, JoAnn Hufnagle, John Karachepone, Julie Masterpool, Lee Gibson, Leslie Bonneau, Mike Fuess, Mike McCarley, Nathan Johnson, Neil Krutz, Phil Slagel, Scott Gibson, Sienna Reid,

Summary of Discussion:

1. Welcome and Introductions – Bryan Gant

- Bryan Gant welcomed attendees, provided introductions, and gave a brief overview of the meeting agenda, goals and objectives. An agenda was distributed along with a project alternatives summary and Level 3 alternatives screening summary.
- Goal of today's TAC meeting is to provide a progress update, obtain additional TAC input on the supplemental alternatives, and close out the Level 3 screening.

2. Supplemental Alternatives Screening Discussion – Chris Primus

- Chris Primus reviewed how the supplemental alternatives were identified during the original range of alternatives development process and were previously screened out as being unable to meet the Purpose and Need for the study as "stand-alone" solutions. At that time it was determined these alternatives should be "set aside" for additional consideration later in the study to determine if they might be effective if used in conjunction with the preferred alternative(s).
- Supplemental alternatives were categorized into three categories: transit, lane type, and system alternatives.
- **Transit Alternatives**
 - The team worked with the RTC modeling staff to evaluate different transit alternatives to be used in conjunction with a build alternative.

- “**Red Line**” transit route would run along the Pyramid corridor along the proposed highway facility in mixed traffic from Calle de la Plata down to the Centennial Plaza in Sparks with some stops serving as park and rides.
- “**Blue Line**” transit route would also run along the Pyramid Corridor down to the Disc Drive area then across through Sun Valley using the proposed connector en route to US 395. The route would also serve the Sun Valley area. The Blue Line would eventually connect to the future Virginia Street BRT route.
- Model runs showed the Red Line would attract about 1200 riders/day which would be average ridership when compared to projected ridership on other RTC routes.
- When the Blue Line route was modeled in conjunction with the Red Line, both routes in tandem only attracted about 1400 riders/day. This indicates that the Blue Line does not serve the corridor as well as the Red Line. This may be due to some redundancy with the existing Route #5 in Sun Valley.
- The Blue Line route was not modeled as a stand-alone route and therefore there was no data to share with regard to its performance as a stand-alone alternative.
- 1,200 riders/day equates to an approximately 2% reduction in traffic along the Pyramid facility.
- Recommendation of the team is to advance the Red Line for further consideration while eliminating the Blue Line from further consideration within the DEIS. The further evaluation of the Red Line within the DEIS would include evaluating transit stop locations and potential park and ride locations.
- **Lane Types**
 - **HOV Lanes** – Reserved for vehicles with more than one occupant per car. Within the model, the team assumed a buffer separated lane on the inside in each direction beginning south of Eagle Canyon and ending near Sun Valley Blvd. Also assumed current policy of 2 or more persons per vehicle to use the HOV lane as well as providing additional mid-corridor access.
 - NDOT HOV policy manual and HOV implementation guide were referenced during the analysis. These guidelines state that a minimum demand threshold for HOV would be 1,000 vehicles per/hour per/lane for the horizon year.
 - Demand for both the HOV and general purpose lanes was analyzed.
 - There was some variation depending on the segment within the corridor.
 - Only one segment of the new HOV lane reached the 1,000 vehicles per peak hour recommended minimum threshold. Most segments are between 800 and 1,000 vehicles per hour per lane.
 - HOV would operate at LOS A and B while the general purpose lanes would operate between LOS C and D.
 - NDOT guidelines for the travel time savings threshold for HOV lanes would equate to a minimum savings of about 8 minutes within this corridor. Based on the LOS analysis, the team calculated that the travel time savings with HOV would only be about one minute – below the suggested travel time savings threshold.
 - HOV would also increase the facility physical footprint to accommodate the necessary buffers.
 - Due to low demand, lack of significant travel time savings, and additional impacts, the team recommends eliminating HOV from further evaluation.
 - **Reversible Lanes** –Typically used to accommodate corridors with a heavy directional pattern. The team assumed two barrier separated lanes in the middle of the corridor with two general purpose lanes in each direction for a total of six lanes. End points were between Eagle Canyon/La Posada and US 395 with a mid-corridor access near Disc.
 - Guidelines for reversible lanes suggest at least a 2:1 ratio between peak direction and off-peak direction of traffic. 3:1 ratio is preferred.
 - The corridor never reaches the preferred 3:1 ratio.
 - During the AM peak, there are some segments which do exceed the 2:1 minimum threshold.
 - During the PM peak, no segments reach the 2:1 minimum threshold.
 - The team also considered the footprint requirements for reversible lanes. An additional 26 feet would be required to accommodate this type of configuration.
 - Based on the low directional split and additional impacts, the team recommends eliminating reversible lanes from further consideration for this project.

- **Express Lanes** – This would be a lane reserved for through traffic traveling the entire length of the corridor and would be buffer separated from the general purpose lanes with no intermediate access points. The team assumed a single express lane in each direction.
 - Demand analysis indicates there is quite a bit of through traffic within the corridor. Toward the northern end of the corridor, approximately 60% of traffic was through traffic with approximate 45% percent further south along the corridor being through traffic.
 - The volume of traffic that could use the express lane is sufficient enough that the LOS would actually be lower (worse) than that of the general purpose lanes. Eventually commuters would recognize this and the traffic would eventually move to the general purpose lanes, evening out the demand levels. This indicates there would be no resulting travel time advantage.
 - The team recommendation is to eliminate express lanes from further evaluation.
- **Toll, HOT, & FAIR Lanes**
 - Toll lanes would require all users to pay for the use of the lane.
 - HOT lanes would require single occupant vehicles to pay for the use of the lane while those that would qualify for HOV would not have to pay a toll.
 - FAIR lanes provide the opportunity for drivers to pay to use the lanes when they need the travel time advantage and receive credits when they choose to travel in the general purpose lanes making it potentially revenue neutral for drivers.
 - Currently, Nevada state law prohibits tolling of public roads and therefore the team recommends eliminating Toll, HOT, and FAIR lanes from further evaluation.
- **Bike/Ped Facilities**
 - There is support for bike/ped facilities and there are some facilities already within the corridor.
 - The team presented their initial recommendations on facilities to be included for additional evaluation within the DEIS. Additional input and recommendations were received from the TAC.
 - Note was made of the TAC recommendations on location and accessibility and will be added to the conceptual facilities carried forward into the DEIS.
 - The team recommends carrying bike/ped facilities into the DEIS for further evaluation.
- **TDM Strategies**
 - **Carpool & Vanpool Programs** – RTC already sponsors these types of programs and would not be applicable to include as part of this project.
 - **School-pool Programs** – Needs a regional or school sponsor and would not be applicable to include as part of this project.
 - **Carpool Lots** – These could be considered further with no immediate apparent flaws. Could potentially provide 3-4 lots along the corridor where commuters could meet and carpool informally. A carpool lot would need to be paved, with good lighting provided, and have safe access to an arterial facility.
 - **Carpool incentives, Telecommuting, Flextime, Staggered work hours, Compressed work weeks** – These would require employer-based sponsors and therefore not applicable to include as part of this project.
 - **Queue Jumps for Transit** – Transit service levels are too low within the corridor. Queue jumps would therefore not be applicable for inclusion in this project.
 - **Park and Ride Lots** – Associated with the transit alternatives being considered. No flaws have been identified. These could potentially be co-located with carpool lots. Recommend carrying forward for further evaluation within the DEIS.
 - **Travel Management Association** – Usually sponsored by multiple employers. Not a significant number of large employers within this corridor. Would not be applicable for inclusion within this project.
- **TSM Strategies**
 - **Incident Management** – Would be beneficial as part of construction mitigation strategy. Possibly providing a courtesy patrol available to quickly respond to and provide clean-up in the event of an incident to limit traffic impacts.
 - **Advanced Traffic Management** – This would include ITS equipment necessary to provide real-time data on conditions within the corridor including sensors, cameras,

communication lines and control centers. DMS could be used at key points within the corridor to provide traffic updates to drivers. The team recommends carrying forward into the DEIS for further evaluation.

- **Signal Timing** – As this is being planned as a freeway facility, signal timing would not be applicable to this project. Signals at interchange locations would be best handled along with other signal timing efforts performed by the local agencies.
- **Ramp Metering** – Future accommodation for ramp meters could be included as part of this project. It is recommended to be carried forward into the DEIS for further evaluation.
- **Accident Investigation Sites** – Recommendation is to evaluate further within the DEIS. Current thoughts are for inclusion of one location in each direction at mid-corridor.

3. Alternatives Screening Recap – Bryan Gant

- Bryan provided a recap of the alternative screening process and those items eliminated from further analysis to-date; this marks a milestone of completing the screening prior to the DEIS. The alternatives that have been identified to move forward will be fully evaluated in the DEIS. He provided an opportunity for the TAC to express any concerns or comments regarding the process and/or the items that have been eliminated. No items of concern were raised.

4. Outreach Update – Cindy Potter

- Cindy noted that the Study Team met with NDOT management on 3/16/2011. NDOT is beginning to look at other projects around the corridor that they will need to do in order to accommodate the Pyramid Highway/US 395 Connection project. There was also discussion regarding the maintenance of the facilities and regional flood control facilities.
- Doug will be doing a presentation for the RTC Board on 3/18/2011.
- The team has been working to get on the April agendas for presentations to the Reno and Sparks City Councils and Washoe County Commissioners. (Presentation for Sparks Council is scheduled for April 11, 2011 – Reno and Washoe County presentation dates TBD).
- SWG meeting to update the group on the Level 3 screening is scheduled for Monday, 3/28/2011.
- Working on scheduling a public meeting for late April. Tentatively slated to be held at Sepulveda Elementary School.
- The team will be gearing up for “grass roots” outreach in Spanish Springs and Sun Valley leading up to the public meeting.

5. Consensus Items

- ***Bike/Ped facilities will be carried forward for additional analysis within the DEIS.***
- ***TDM – Carpool and park and ride lots will be carried forward for additional analysis within the DEIS.***
- ***TSM – Ramp metering, incident management, advanced traffic management, and accident investigation sites will be carried forward for additional analysis within the DEIS.***
- ***Transit Red Line alternative will be carried forward for additional analysis within the DEIS.***
- ***Lane Type Options – General purpose lanes will be carried forward for additional analysis and refinement within the DEIS. (Reversible/HOV combination lane will be looked at by the team at the TAC’s request to determine if this might be a viable lane type to carry forward into the DEIS.)***

6. Next Steps – Bryan Gant/Cindy Potter

- The team will perform analysis to determine viability of a combination reversible/HOV lane.
- Continue to refine alternatives being carried forward into the DEIS.

7. Q & A

Q: *What level of [transit] ridership is required to make the route financially viable?*

A: *This would be a question better answered by the RTC Transit staff. However, they do currently have many routes that serve about 1,000/day, some routes that serve several hundred per day, and*

their best routes serve about 2,000/day. Given the volume served according to the model, the Red Line would most likely be a feasible route when compared to existing routes. [Tom Greco advised that he would check with RTC Transit staff to get additional information in response to the question].

Q: *Do all RTC buses accommodate ADA passengers?*

A: *All RTC buses are ADA compliant. However, those with special needs are not as likely to use the larger buses, but are more likely to use RTC Access on-demand ADA system.*

Q: *What is the funding source for this project?*

A: *The funding source(s) have not been definitively identified. However, it is assumed it would be funded by a combination of Federal, State, and Local funds.*

Q: *If HOV was included would that enable the project to tap into additional sources of federal funds?*

A: *There might be additional consideration for federal funding if HOV is included.*

Q: *Would it be beneficial to possibly provide an HOV lane on Pyramid today?*

A: *We would have to find a way to provide a benefit at the signals as these serve as an equalizer. Some type of signal jump would have to be provided to attract people to the lanes. We would also need to determine a safe way to provide access for the turn movements along Pyramid. Drivers would be able to use the HOV lanes for the purposes of making left turns. Typically, the advantage at signals would be waiting fewer cycles to get through the signals.*

Q: *Is there a way to run the model to assume that US 395 and I-80 had HOV lanes as well to see what the travel time savings would be to get to various areas within Reno/Sparks from the Pyramid Corridor?*

A: *This could be done and it could potentially provide more significant travel time savings depending on the origins and destinations used.*

Q: *Why do you suppose the directional split within the corridor goes down in the future model?*

A: *This is likely due to the corridor becoming less of a residential focused corridor and providing more commercial development within the area.*

Q: *What if we only used a single reversible lane rather than two?*

A: *The reason behind having two lanes is to provide emergency access and to allow traffic to bypass a stalled vehicle in a through lane.*

Q: *What about a reversible HOV lane? How would it perform in meeting the minimum threshold guidelines?*

A: *This has not been modeled; however, the team could take a look at this type of combination to determine if there would be sufficient demand to make such a facility viable.*

Q: *What if Nevada law is changed during the current legislative session to allow tolling on public roads?*

A: *That would likely depend on additional financial analysis and whether the RTC felt that this project would be a good candidate for tolling and if it was felt the additional revenue would be needed. It was noted that if the LOS was comparable to the general purpose lanes, then managed lanes would have a difficult time competing with the general purpose lanes.*

Q: *Have any of the bicycle groups been given the opportunity to review and comment on proposed facilities?*

A: *No. However, the team attended a recent RTC Bike/Ped Plan public meeting during which we asked where they would like to see facilities within the corridor. One question that came up was whether we would be providing access on the east/west connector.*

Q: *Has there been any thought given to who might maintain carpool lots if provided?*

A: *This has not been considered, but we could look into a shared use and/or private/public partnership to provide lot space and maintenance.*

Q: *What is the schedule for getting the EIS prepared?*

A: *The current schedule would be to have an administrative draft ready for review by the end of 2011.*

12. Comments

Although HOV does not currently make sense for the Pyramid corridor, the FHWA would like to see the project implemented in a manner that would not preclude future HOV implementation so that any future HOV networks could be accommodated. – It was noted that the team could state that the design would not preclude HOV, however, reserving right of way for possible future HOV retrofit would be difficult to defend.

Note was made that NDOT would not be able to justify prohibiting use of freeway facilities for bikes unless there are parallel facilities available, though parallel facilities do not necessarily ensure a prohibition would be approved. McCarran or Highland Ranch Parkway would likely not be considered parallel facilities.

Despite the steep grades, a parallel bike/ped facility should be provided for those that may want to use it (parallel to the connector).

Bike/ped accommodations should be provided on both sides of Pyramid as there are origins and destinations on both sides that users may want to access.

Maintenance of bike/ped facilities will need to be considered. NDOT does not desire to maintain these facilities, and cited the bike path parallel to the Carson Freeway as an example—it is maintained by Carson City.

New PROWAG accessibility standards currently going through the rule making process (not yet adopted) state that as long as the natural grade of the roadway is followed, landings would not be required to maintain ADA compliance. ADAG standards require provision of landings when there are steep grades in order to maintain ADA compliance.

Note was made that as more funding is becoming predicated on performance measures, TSM/ITS would need to be considered for inclusion as part of the project in order to better compete for available funding.

Request was made for the team to coordinate the DEIS release with the Pyramid/McCarran DEIS to avoid both documents being submitted for review by NDOT and FHWA at the same time.

NOTE: The Next TAC meeting is tentatively scheduled for May 20, 2011 from 1:30-4:00pm at the NDOT District II conference room.


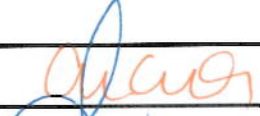



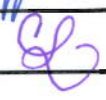
Meeting adjourned at 3:15 p.m.

Attachment A

Attendance Roster

Date: 3/17/11

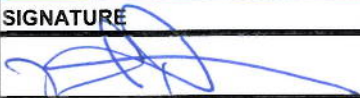




TAC MEETING ROSTER

SIGNATURE	NAME	AGENCY	TELEPHONE	EMAIL
	Abdelmoez (Del) Abdalla	FHWA	775.687.1204	abdelmoez.abdalla@fhwa.dot.gov
	Amir Soltani	NDOT	775.888.7321	asoltani@dot.state.nv.us
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	Anita Lyday	NDOT Traffic	775.843.8320	alyday@dot.state.nv.us
	Ben Taylor	Jacobs		Ben.Taylor@jacobs.com
	Bill Glaser	NDOT PM Division	775.888.7603	wglaser@dot.state.nv.us
	Bryan Gant	Jacobs		bryan.gant@jacobs.com
	Carolyn Mulvihill	EPA		mulvihill.carolyn@epa.gov
	Charla Honey	City of Reno		honey@reno.gov
	Chris Louis	RTC	775.335.1864	clouis@rtcwashoe.com
	Chris Primus	Jacobs		chris.primus@jacobs.com
	Chris Young	NDOT		cyoung@dot.state.nv.us
	Cindy Potter	CH2M HILL	775.329.7300	cpotter@ch2m.com
	Clara Lawson	Washoe County	775.328.3603	clawson@washoecounty.us



Date: 3/17/11

TAC MEETING ROSTER

SIGNATURE	NAME	AGENCY	TELEPHONE	EMAIL
	David Dodson	CH2M HILL	775.329.7300	david.dodson@ch2m.com
	Denise Thompson	RTC		dthompson@rtcwashoe.com
	Doug Maloy	RTC	775.335.1865	dmaloy@rtcwashoe.com
	Hannah Visser	FHWA	775.687.5322	Hannah.Visser@dot.gov
	Jeff Hale	RTC		jhale@rtcwashoe.com
	Jim Clarke	Jacobs		jim.clarke@jacobs.com
	Jim Rundle	City of Sparks	775.353.7827	jrundle@cityofsparks.us
	JoAnn Hufnagle	BLM		jhufnagl@nv.blm.gov
	John Karachepone	Jacobs		john.karachepone@jacobs.com
	Jon Ericson	City of Sparks	775.353.7809	jericson@cityofsparks.us
	Julie Masterpool	RTC	775.335.1897	jmasterpool@rtcwashoe.com
	Lee Gibson	RTC		lgibson@rtcwashoe.com
	Leslie Regos	CH2M HILL	775.329.7300	lregos@ch2m.com
	Mark Gallegos	CH2M HILL	775.329.7300	mark.gallegos@ch2m.com

Date: 3/17/11

TAC MEETING ROSTER

SIGNATURE	NAME	AGENCY	TELEPHONE	EMAIL
	Mike Fuess	NDOT	775.834.8300	mfuess@dot.state.nv.us
	Mike McCarley	Jacobs		mike.mccarley@jacobs.com
	Nathan Johnson	NDOT		njohnson2@dot.state.nv.us
	Neil Krutz	City of Sparks	775.353.23.4	nkrutz@cityofsparks.us
	Phil Slagel	NDOT	775.888.7318	PSlagel@dot.state.nv.us
<i>RT</i>	Randy Travis	NDOT		rtravis@dot.state.nv.us
	Scott Gibson	RTC		sgibson@rtcwashoe.com
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	Sienna Reid	TMRPA		sreid@tmrpa.org
<i>mode via telephone</i>	Steve Cooke	NDOT	775.888.7686	scooke@dot.state.nv.us
<i>SRO</i>	Steve Oxoby	Carter Burgess	775.850.5108	Steve.oxoby@jacobs.com
<i>SG</i>	Tom Greco	RTC	775.544.7819	tgreco@rtcwashoe.com
	<i>Chris Matheson</i>	<i>Jacobs</i>		<i>christophy.matheson2@jacobs.com</i>

Attachment B
Presentation Slides

TAC Meeting #13

March 17, 2011

JACOBS



**PYRAMID
HIGHWAY**



**US 395
CONNECTION**

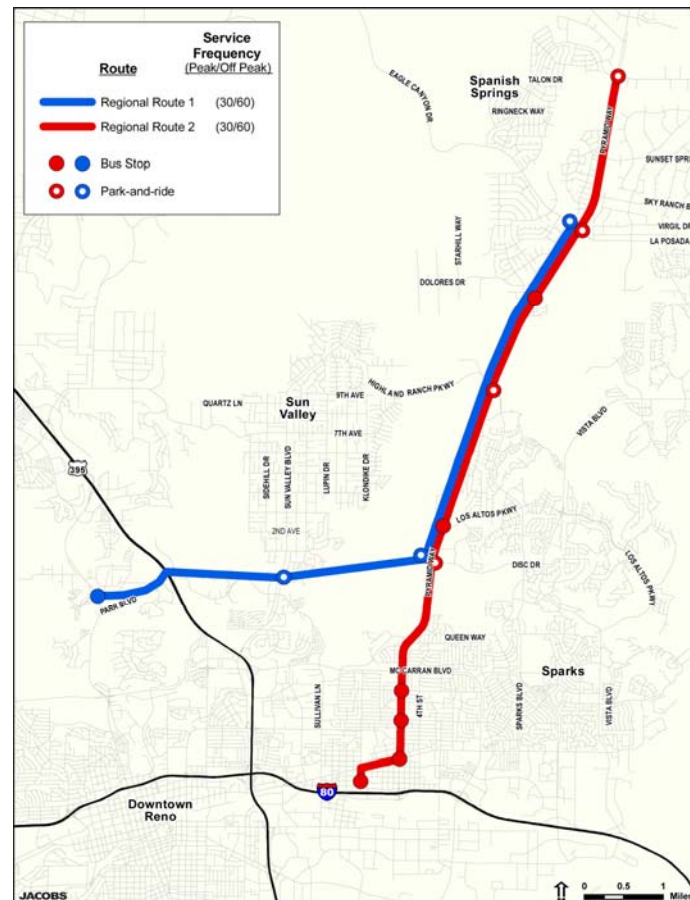


- ❑ Identified during early screening stages
- ❑ Are a feature of a stand-alone alternative
- ❑ Categories
 - ❑ Transit alternatives
 - ❑ Lane type options
 - ❑ System alternatives

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Transit Alternatives

- New bus route(s)
 - Red Line: Pyramid corridor to RTC Centennial Plaza
 - Blue Line: Pyramid corridor to Virginia
- Park-and-rides



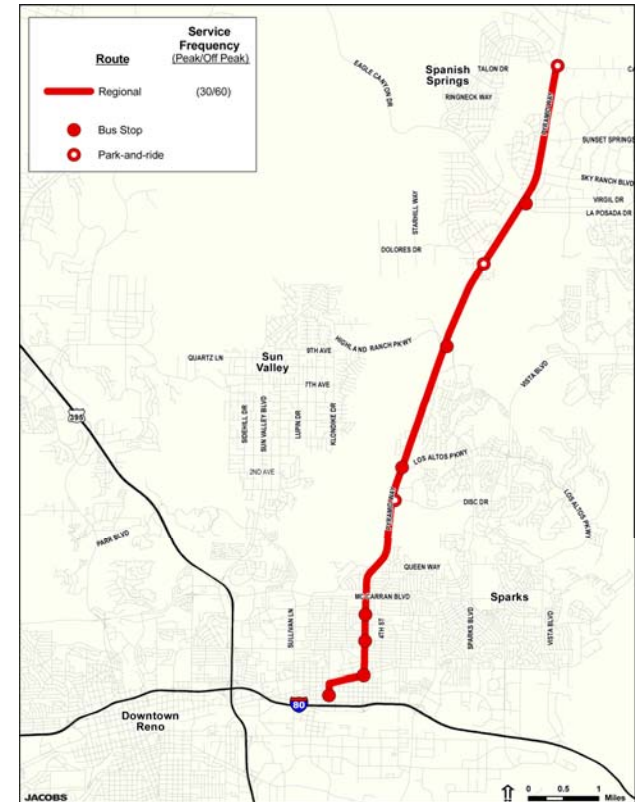
Transit Evaluation

- ❑ Ridership
 - ❑ Red line by itself: 1,200 daily riders
 - ❑ Red & Blue lines together: 1,400 daily riders
- ❑ Travel Time
 - ❑ Operate in mixed traffic
- ❑ Traffic reduction
 - ❑ <2% reduction of daily volumes on Pyramid highway



Transit Conclusions & Recommendation

- ❑ Red Line: **Advance**
 - ❑ Viable ridership
- ❑ Blue line: **Eliminate**
 - ❑ Not an effective route pattern
 - ❑ Redundancy with Sun Valley route
- ❑ Next Steps:
 - ❑ Evaluate & confirm park-and-ride locations
 - ❑ Include Red line with future alternative analysis



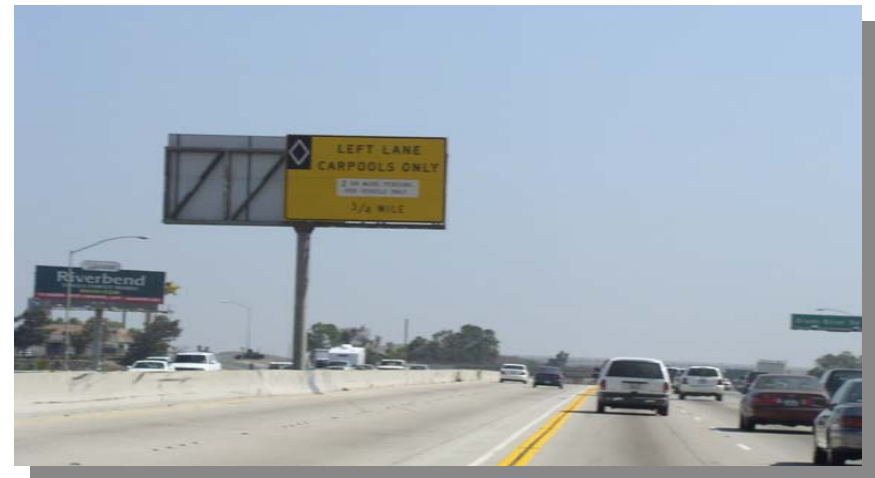
Level 3 Lane Type Alternatives

- ❑ High Occupancy Vehicle Lanes (HOV)
- ❑ Reversible Lanes
- ❑ Express Lanes
- ❑ Toll Lanes
- ❑ High Occupancy Toll Lanes (HOT)
- ❑ FAIR Lanes



HOV Lanes

- ❑ Buffer-separated inside lane in each direction
- ❑ Two general purpose lanes in each direction
- ❑ HOV endpoints between Eagle Canyon/La Posada and US 395
- ❑ Restricted to vehicles of two or more occupants
- ❑ Access at specified locations



SR-91, California



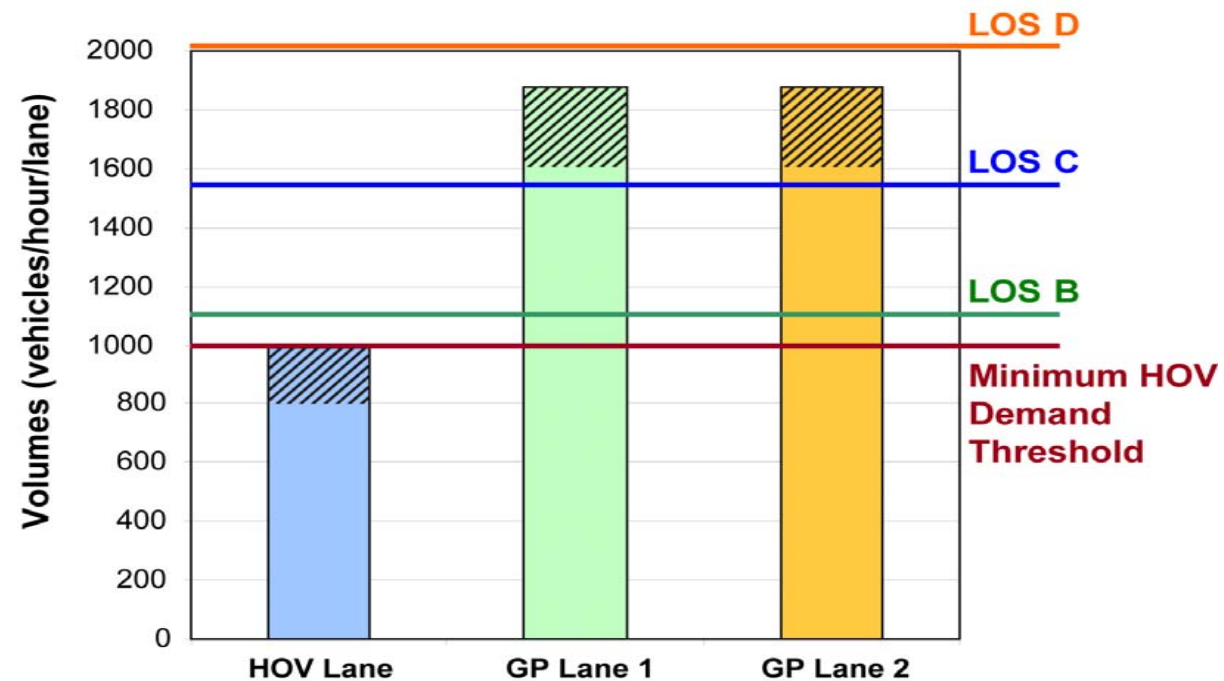
I-15, California



HOV Lane Demand Analysis

- HOV demand in corridor below or near minimum threshold

HOV Demands during PM Peak Hour, by lane



Further HOV Lane Analysis

- ❑ Travel time advantage would be below suggested threshold of 8 minutes
 - ❑ LOS analysis indicates that non-HOV lanes operate at about free-flow speeds
 - ❑ Approximate travel time savings of 1 minute
- ❑ Increased footprint (+ 8' to 16') could create
 - ❑ additional cut and fill,
 - ❑ visual impacts,
 - ❑ and increased costs

HOV Conclusions & Recommendation - Eliminate

- ❑ Low demand
- ❑ Minimal travel time savings
- ❑ Additional impacts

Reversible Lanes

- ❑ Two barrier-separated lanes
- ❑ Two general purpose lanes in each direction
- ❑ Endpoints between Eagle Canyon/La Posada and US 395
- ❑ Mid-corridor access near Disc
- ❑ Reverse to serve peak direction traffic



I-90, Washington



I-25, Colorado



PYRAMID
HIGHWAY

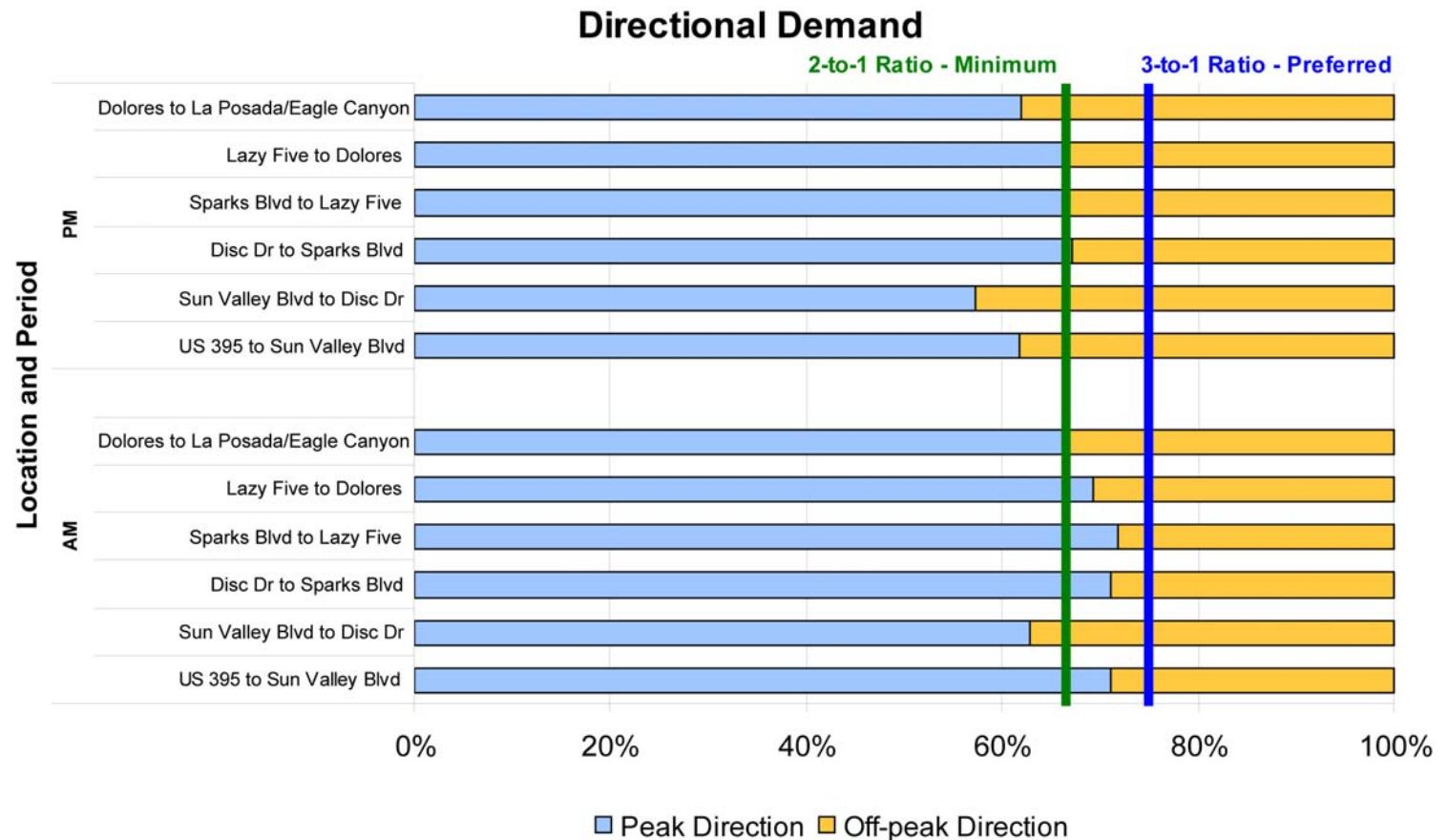


US 395
CONNECTION

Supplemental Alternatives - Reversible

Reversible Lane Demand Analysis

- Directional demand does not meet suggested threshold



Further Reversible Lane Analysis

- ❑ Increased footprint (+ 26') could create
 - ❑ additional cut and fill,
 - ❑ visual impacts,
 - ❑ and increased costs

Reversible Lane Conclusions & Recommendation

- ❑ Reversible Lane: **Eliminate**
 - ❑ No operational advantage compared to general purpose lanes
 - ❑ Directional threshold not met
 - ❑ Additional impacts

Express Lanes

- ❑ Separated, free lane for through travelers
- ❑ Endpoints south of Eagle Canyon/La Posada and east of Sun Valley
- ❑ No intermediate access points
- ❑ Buffer-separated inside lane in each direction
- ❑ Two general purpose lanes in each direction

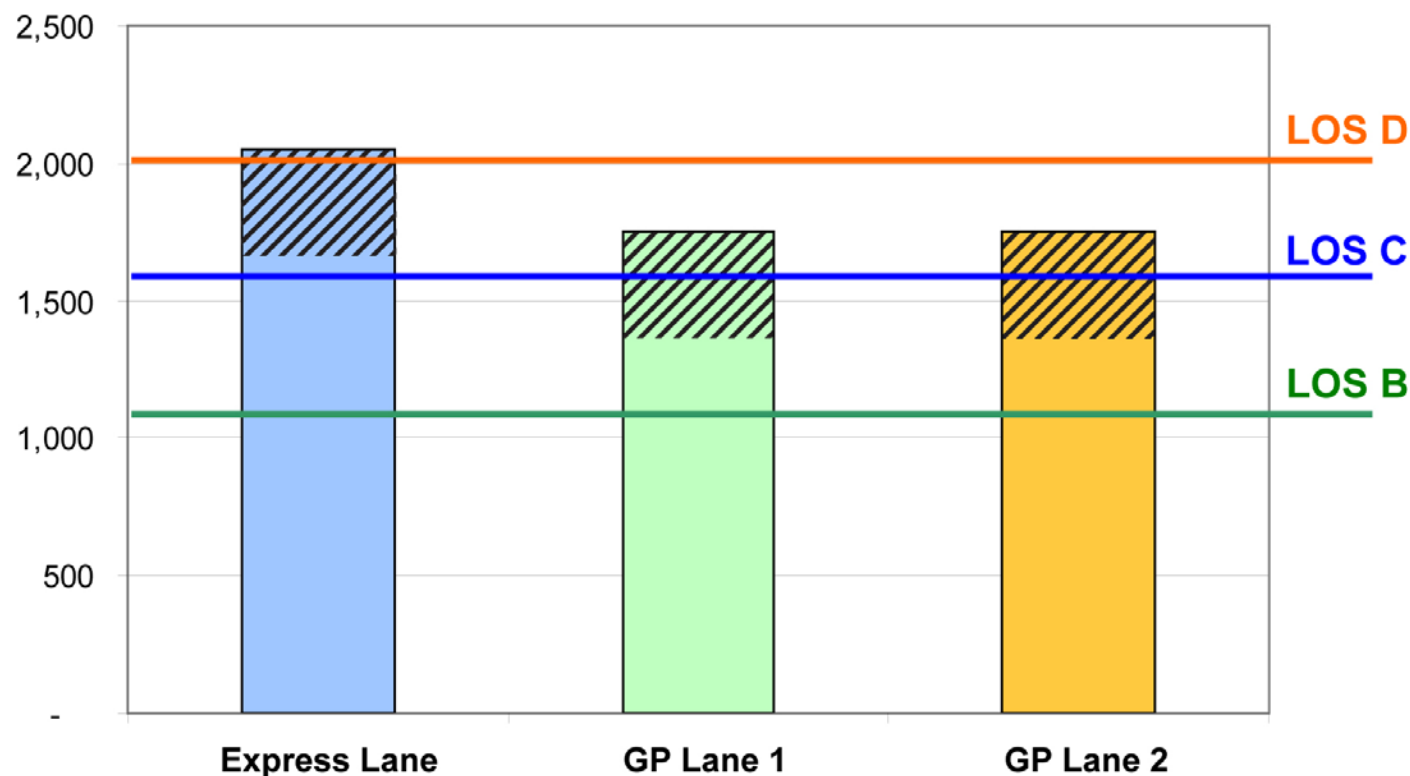


SR-91, California

Express Lane Demand Analysis

- Demand exceeds GP lane demand

Express Lane Demand During PM Peak Hour, by Lane



Further Express Lane Analysis

- ❑ No travel time advantage
- ❑ Increased footprint (+ 8' to 16') could create
 - ❑ additional cut and fill,
 - ❑ visual impacts,
 - ❑ and increased costs

Express Lane Conclusions & Recommendation

- ❑ Express Lanes: **Eliminate**
 - ❑ No travel time advantage
 - ❑ Excessive demand or additional express lane
 - ❑ Additional impacts

Toll, HOT, & FAIR Lanes - **Eliminate**

- ❑ Each of these options involves tolling
- ❑ Currently, Nevada state law prohibits tolling of any public roadway
- ❑ Eliminated from further evaluation
- ❑ Footprint and design will consider accommodations for future implementation of tolling infrastructure





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Supplemental Alternatives – Bike & Ped

- ❑ Bicycle and Pedestrian Facilities - **Advance**
- ❑ Consistent with RTC planning policy
- ❑ Design Options
 - ❑ Shared use – two-way; one-side
 - ❑ Separate use – one-way; both sides



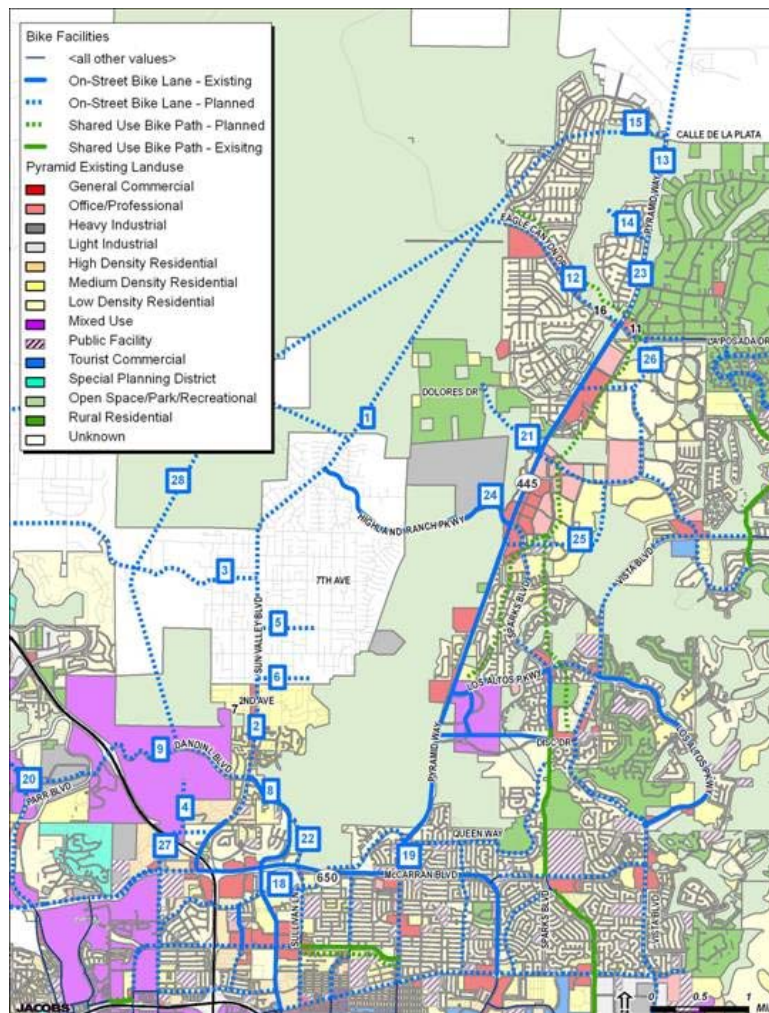


PYRAMID
HIGHWAY

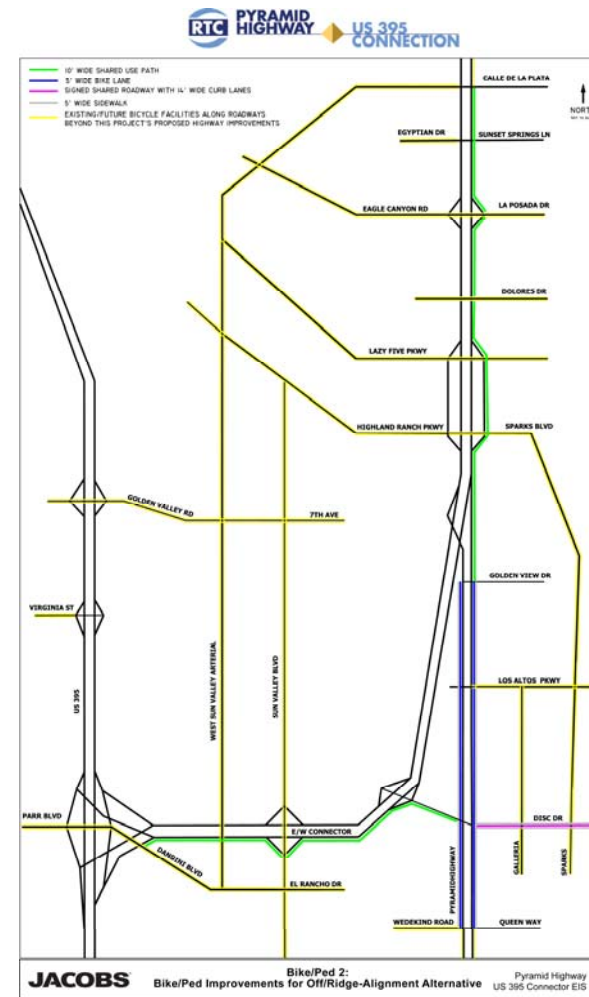
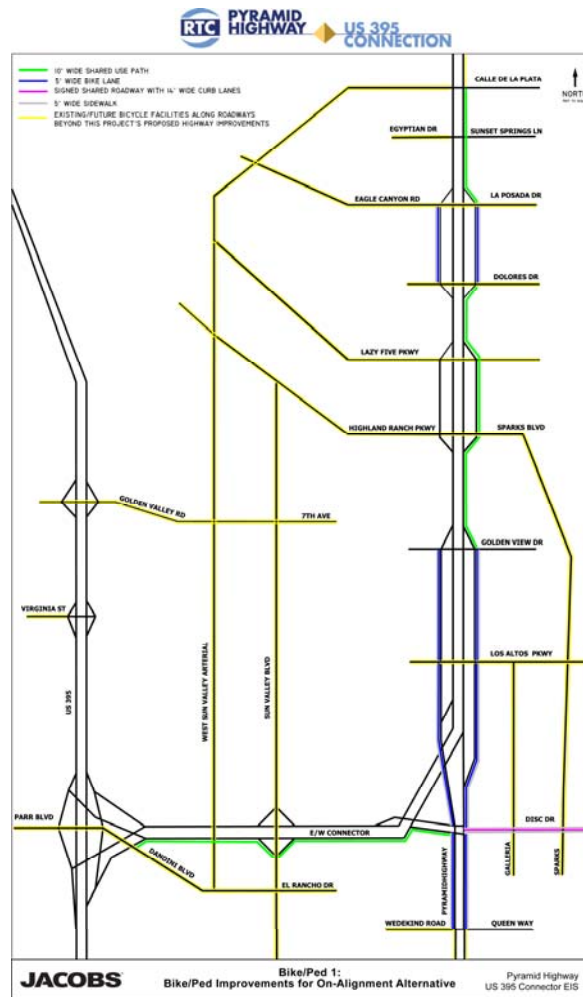
US 395
CONNECTION

Supplemental Alternatives – Bike & Ped

Existing and Planned Bicycle and Pedestrian Facilities



□ Proposed Bicycle and Pedestrian Improvements



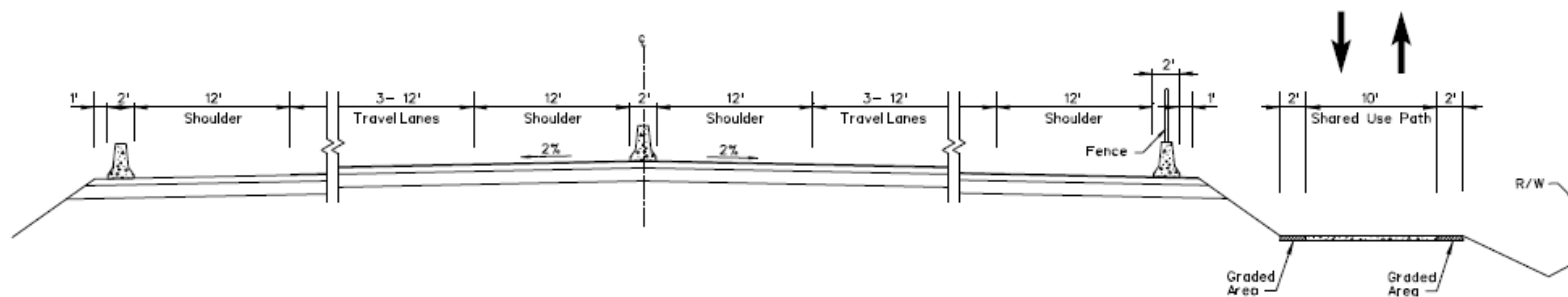


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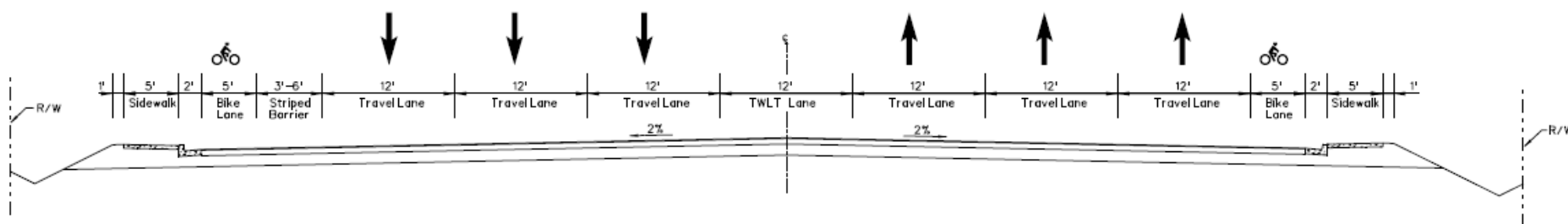


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Supplemental Alternatives – Bike & Ped

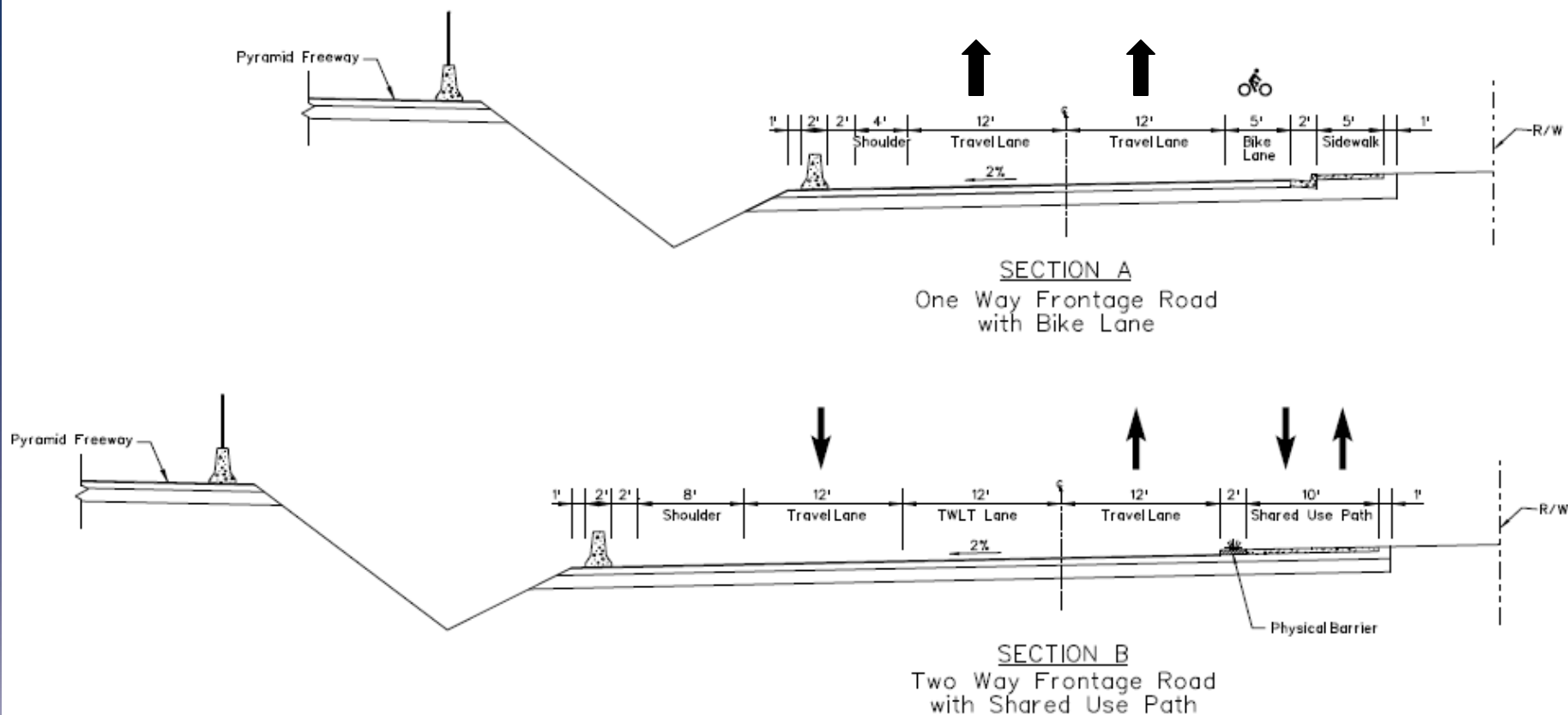


SECTION C
Pyramid Freeway
with Separated Shared Use Path



SECTION D
Pyramid Highway
with Bike Lane Options

Supplemental Alternatives – Bike & Ped





**PYRAMID
HIGHWAY**



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Supplemental Alternatives – TDM/TSM

Travel Demand Management

- ❑ Strategies that promote reduction of vehicle travel

Transportation System Management

- ❑ Strategies that maximize efficiency

Intelligent Transportation Systems

- ❑ Technology-based solutions

TDM Evaluation & Results

Strategy	Evaluation	Project Application
Carpool and vanpool programs	RTC already sponsors	No
Schoolpool program	Needs regional or school sponsor	No
Carpool lots	No flaws identified	Yes – 3 to 4 locations along corridor

TDM Evaluation & Results

Strategy	Evaluation	Project Application
Carpool incentives	Need employer-based sponsors	No
Telecommuting		No
Flextime		No
Staggered work hours		No
Compressed work weeks		No

TDM Evaluation & Results

Strategy	Evaluation	Project Application
Queue jumps for transit	Transit service levels too low	No
Park-and-rides	No flaws identified	Yes – Co-locate with carpool lots
Travel Management Association	Need many main employers	No

TSM Evaluation & Results

Strategy	Evaluation	Project Application
Incident Management	Yes	Construction mitigation
Advanced Traffic Management	Yes	Real-time data collection; DMS at select locations
Signal timing	Local agency	No

TSM Evaluation & Results

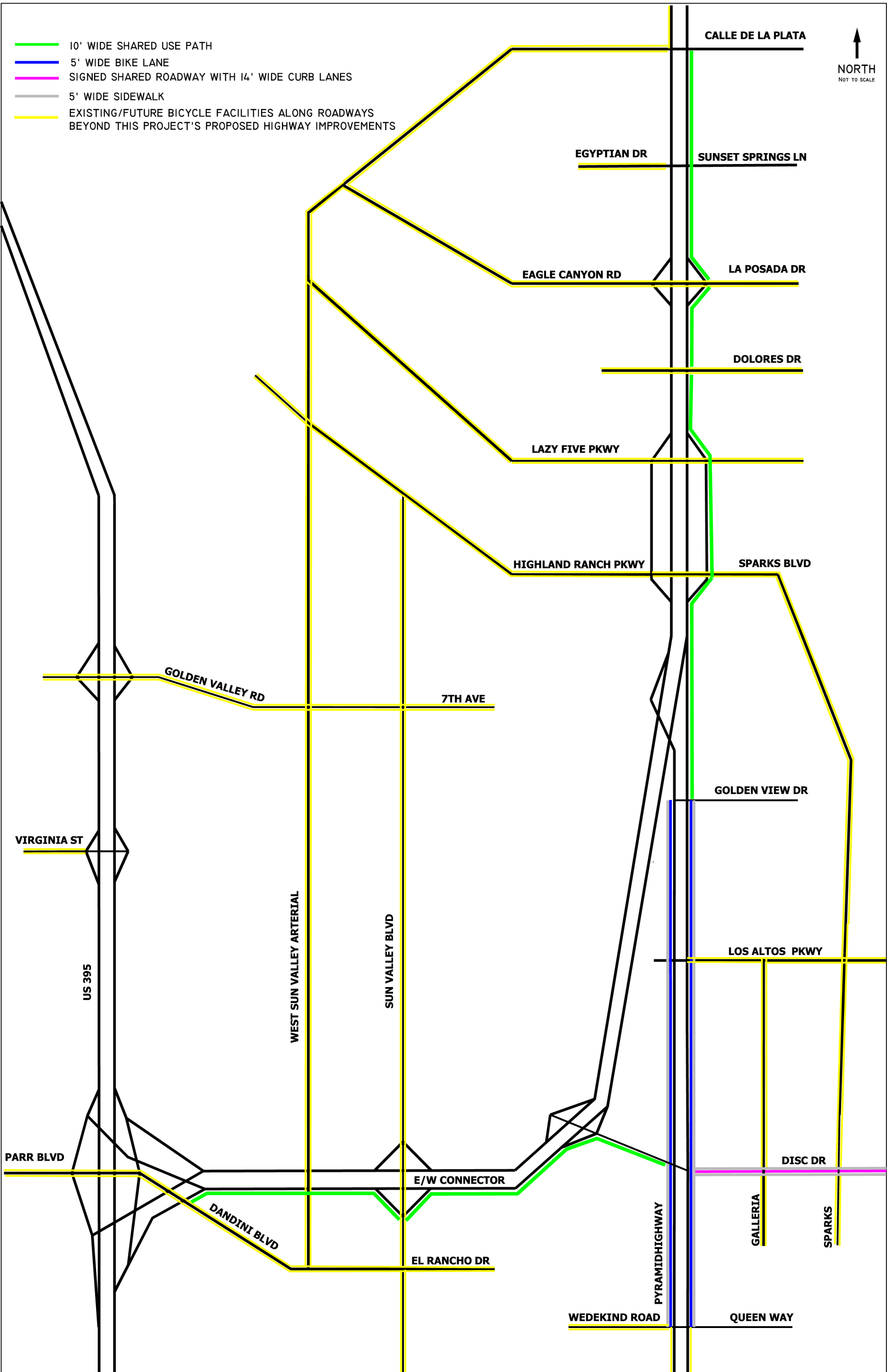
Strategy	Evaluation	Project Application
Ramp metering	Yes	Include footprint in design at on-ramps
Accident investigation sites	Yes	One mid-corridor site (each direction)

Alternative	Evaluation	Project Application
Transit	Advance	Red Line to be included in DEIS Packages
HOV Lane	Eliminate	No further analysis
Reversible Lane	Eliminate	No further analysis
Express Lane	Eliminate	No further analysis
Toll, HOT, FAIR Lane	Eliminate	No further analysis
TDM and TSM	Advance	Variety of strategies to be included in DEIS Packages
Bike and Ped Facilities	Advance	Bike and Ped facilities to be included in DEIS Packages as appropriate

Attachment C
Meeting Displays

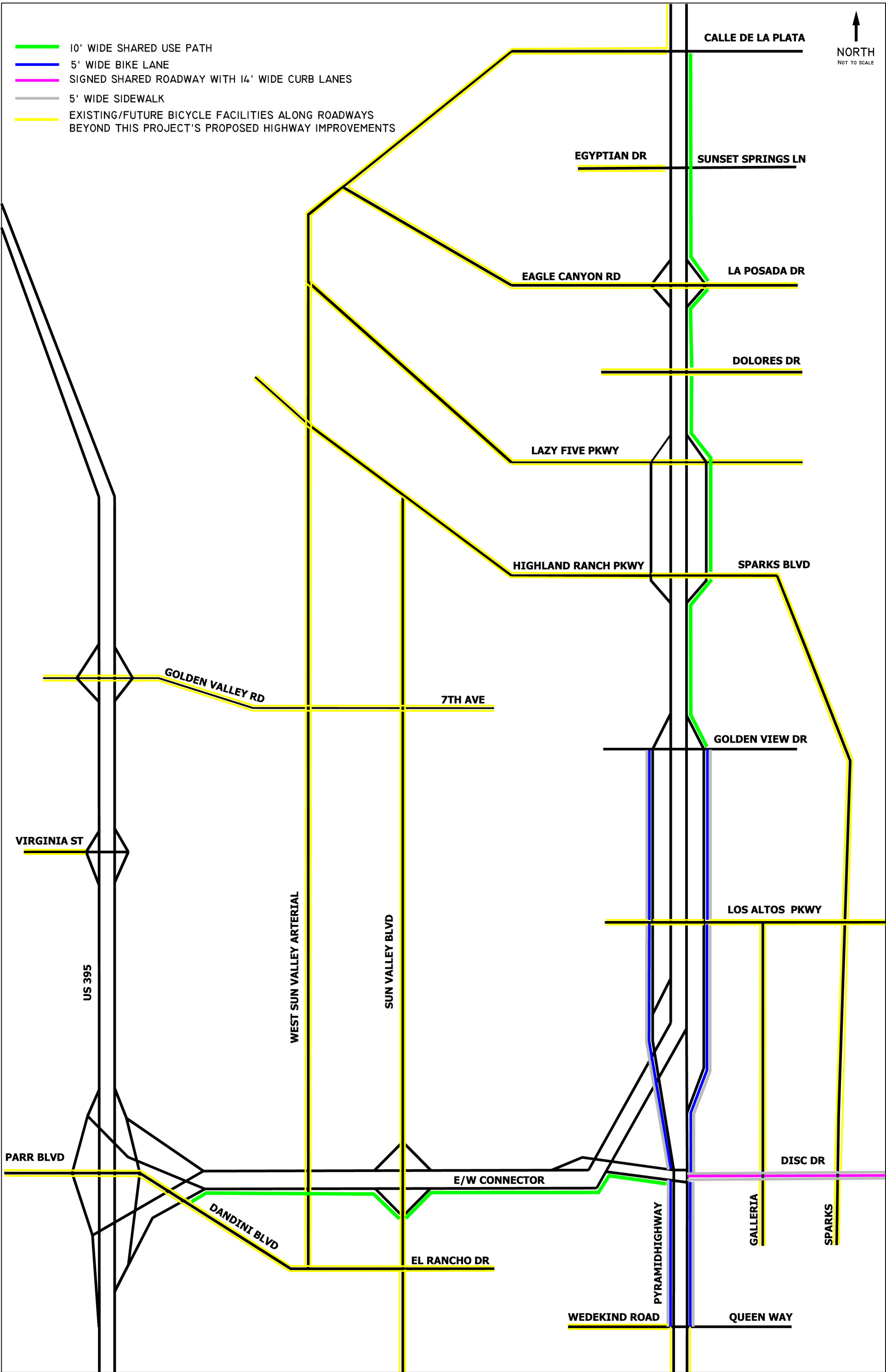
- 10' WIDE SHARED USE PATH
- 5' WIDE BIKE LANE
- SIGNED SHARED ROADWAY WITH 14' WIDE CURB LANES
- 5' WIDE SIDEWALK
- EXISTING/FUTURE BICYCLE FACILITIES ALONG ROADWAYS BEYOND THIS PROJECT'S PROPOSED HIGHWAY IMPROVEMENTS

NORTH
NOT TO SCALE



- 10' WIDE SHARED USE PATH
- 5' WIDE BIKE LANE
- SIGNED SHARED ROADWAY WITH 14' WIDE CURB LANES
- 5' WIDE SIDEWALK
- EXISTING/FUTURE BICYCLE FACILITIES ALONG ROADWAYS BEYOND THIS PROJECT'S PROPOSED HIGHWAY IMPROVEMENTS

NORTH
NOT TO SCALE

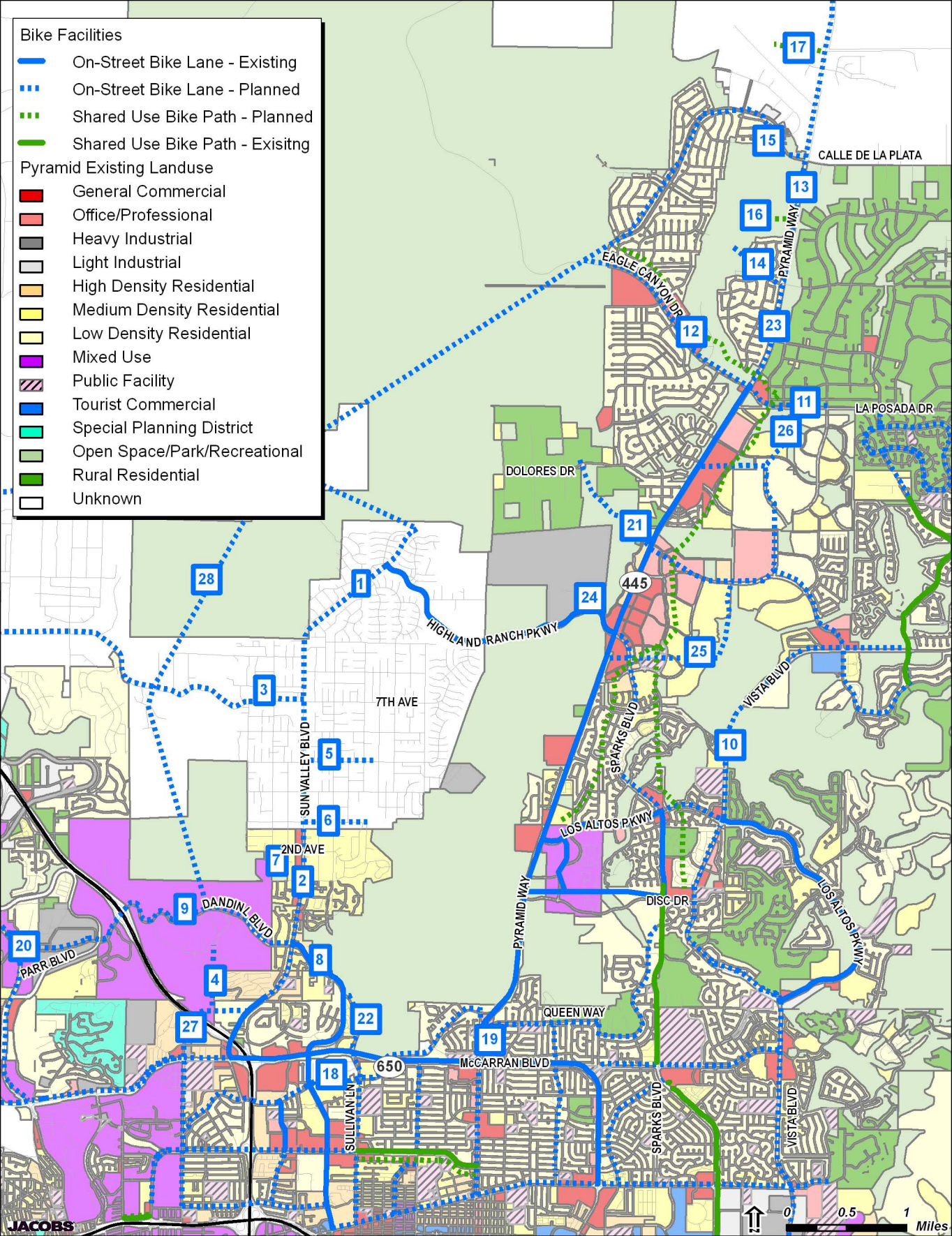


Bike Facilities

- On-Street Bike Lane - Existing
- - - On-Street Bike Lane - Planned
- - - Shared Use Bike Path - Planned
- Shared Use Bike Path - Existing

Pyramid Existing Landuse

- General Commercial
- Office/Professional
- Heavy Industrial
- Light Industrial
- High Density Residential
- Medium Density Residential
- Low Density Residential
- Mixed Use
- Public Facility
- Tourist Commercial
- Special Planning District
- Open Space/Park/Recreational
- Rural Residential
- Unknown





**PYRAMID
HIGHWAY**



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Technical Advisory Committee (TAC) Meeting #13

March 17, 2011; 1:30 p.m. – 3:30 p.m.

NDOT District II Conference Room

GOAL

Review supplemental alternatives and complete Level 3 Screening.

- | | |
|--|--------------------|
| 1. Introductions / Agenda Review – Bryan Gant | 1:30 – 1:40 |
| 2. Progress Review – Bryan Gant | 1:40 – 1:45 |
| 3. Supplemental Alternatives – Chris Primus | 1:45 – 3:00 |
| <ul style="list-style-type: none">• Transit Alternatives• Lane Type Alternatives• Bike / Ped Alternatives• TDM / TSM Alternatives | |
| 4. Level 3 Screening Review – Bryan Gant | 3:00 – 3:10 |
| 5. Outreach Next Steps – Cindy Potter | 3:10 – 3:25 |
| 6. Action Item Review – Bryan Gant | 3:25 – 3:30 |
| 7. Adjourn Meeting | 3:30 |



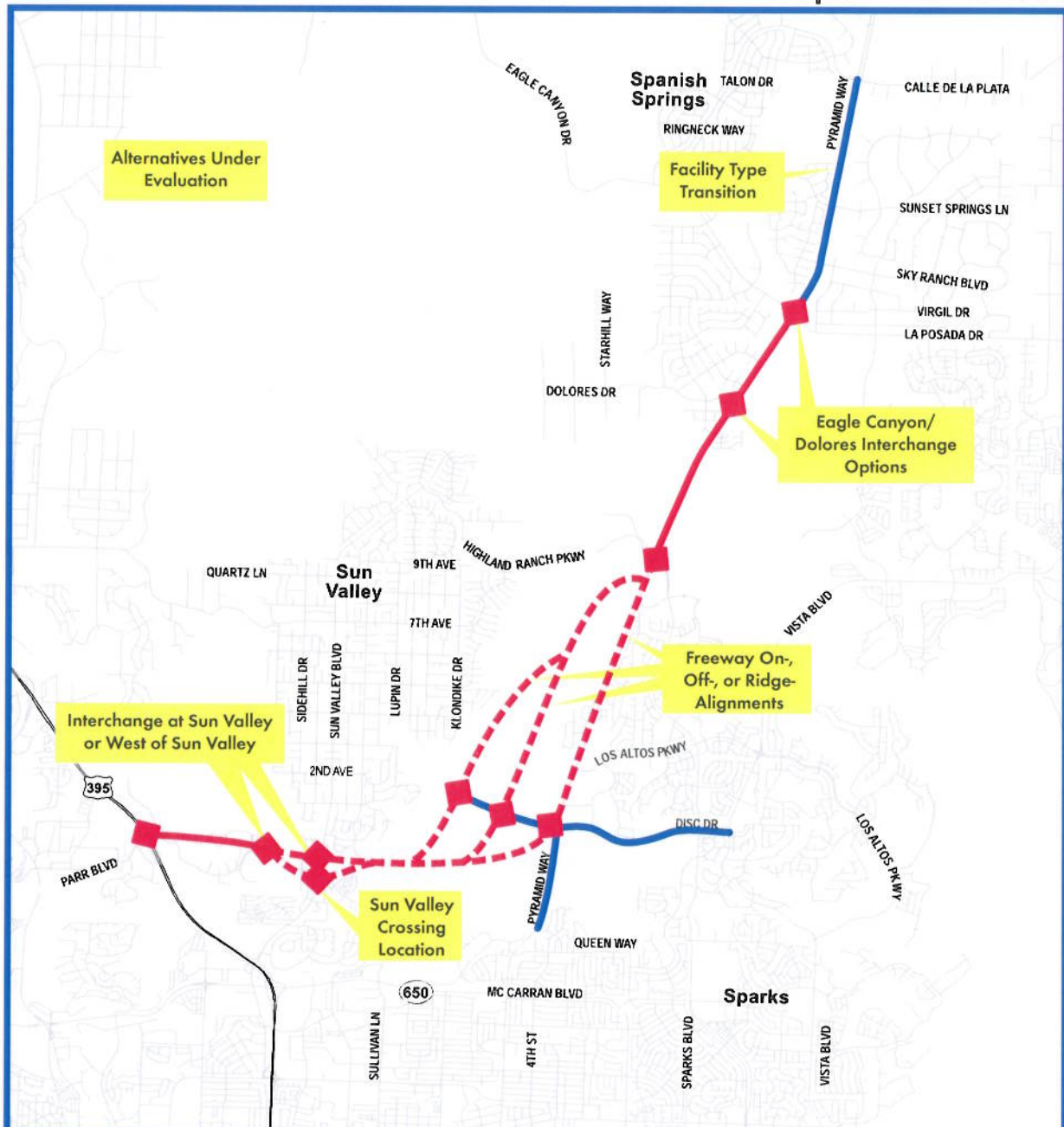
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DRAFT

Project Alternatives



ALTERNATIVES SUMMARY

US 395 Interchange	Sun Valley Options	Alignment Options	Northern Terminus
At-Parr Interchange	North Crossing at Rampart	On-Alignment	Eagle Canyon/Dolores Interchange w/Frontage Roads
	South Crossing North of El Rancho	Off-Alignment	Freeway through Eagle Canyon/La Posada
	Interchange West of Sun Valley	Ridge-Alignment	
	Interchange at Sun Valley Blvd.		

LEGEND

- = Freeway
- = Freeway Alignment Options
- = Arterial Widening
- = Interchange

Preliminary Subject to Revisions
JACOBS



TAC No.	Date	Outcome
1	2-21-08	<ul style="list-style-type: none"> Reviewed the Project's Goals (Purpose and Need) Overview of the Project Process and TAC Responsibilities Discuss Needs in the Corridor to Support Purpose and Need Development
2	4-17-08	<ul style="list-style-type: none"> Reviewed Existing Traffic Collection Data Update on the 2040 Regional Transportation Plan by RTC Discussion Regarding the Results of the April, 2008 Public Meeting
3	7-17-08	<ul style="list-style-type: none"> Further Reviewed and Discussed Purpose and Need Elements Determined the Range of Project Alternatives Discussed Concept Screening Methodology and Process
4	9-18-08	<ul style="list-style-type: none"> Reviewed, Discussed, and Completed Level 1 Concept Screening
5	1-15-09	<ul style="list-style-type: none"> Overview of Level 2A Screening and Criteria Preliminary Traffic Findings Identification of April 2009 Public Meeting
6	2-19-09	<ul style="list-style-type: none"> Traffic and Environmental Analysis Results Level 2A Screening Review and Completion
7	5-21-09	<ul style="list-style-type: none"> Engineering, Traffic, and Environmental Analysis Results Level 2B Screening Review and Completion
8	7-16-09	<ul style="list-style-type: none"> Right-of-Entry Footprint Review and Determination
9*	10-15-09	<ul style="list-style-type: none"> Detailed Review and Preliminary Screening of Initial "H17" Concept Alternatives Confirmed Alternatives for Detailed Level 3 Screening Analysis
10	1-21-10	<ul style="list-style-type: none"> Traffic Forecasting Results for Level 3 Screening** Interim Level 3 Screening Review
11	8-19-10	<ul style="list-style-type: none"> Reviewed / confirmed progress to date and discussed project horizon year Screened out the South-of-Parr interchange (Level 3) Discussed Pyramid off-alignment alternatives (none screened)
12	2-17-11	<ul style="list-style-type: none"> Provided an update on the latest traffic forecasts to be used for DEIS analysis Confirmed facility type needs at the project northern terminus and Sun Valley interchange viability

* TAC Meeting #9 Consisted of a Detailed Workshop ** Traffic Forecasting Results Based on 2040 RTP Travel Demand Model

Level 3 Supplemental Alternative Screening Summary

Screening Element		Considerations						Screen Out	Carry Forward as Supplementary Alternative	Carry Forward as Stand-Alone Alternative	
Criterion		Compatibility with State Law	Travel Demand	Travel Time	Traffic Operations Benefit	Compatibility with Local Plans	Additional Footprint Impacts				Comments
System Alternatives											
S-1	No-Action									✓	Carry forward per requirements.
S-4	Pedestrian and Bicycle Improvements	○	n/a	n/a	n/a	○	◐		✓		Carry forward for further analysis as supplemental alternative.
S-5	TDM Improvements	○	◐	◐	◐	○	○	✓	✓		Carry forward carpool lots and park-and-rides for further analysis as supplemental features. Eliminate carpool, vanpool, schoolpool, carpool incentives, telecommuting, flextime, staggered work hours, compressed work weeks, and travel management associations due to being programs best conducted by other organizations and/or employers and not by a corridor project. Eliminate transit queue jumps due to low service demand levels.
S-6	TSM/ITS Improvements	○	◐	◐	◐	○	◐	✓	✓		Carry forward incident management, advanced traffic management, ramp metering, and accident investigation sites for further analysis as supplemental features. Eliminate signal timing due to best conducted by local agencies and not by a corridor project.
Transit Alternatives											
T-1	Transit - Bus Rapid Transit	○	◐	◐	◐	◐	◐	✓			Eliminate due to need to operate in conjunction with HOV lane alternative.
T-2	Transit - Regional Bus	○	◐	◐	◐	○	◐		✓		Carry forward for further analysis as supplemental alternative.
Lane Type Options											
L-1	General Purpose Lanes on new and/or improved facilities	○	◐	◐	◐	○	○			✓	Carry forward for additional analysis
L-2	HOV Lanes on new and/or improved facilities	○	◐	◐	◐	◐	◐	✓			Screen out due to low demand, minimum travel time benefits, and additional footprint impacts
L-3	Toll Lanes on new and/or improved facilities	●						✓			Screen out due to incompatibility with state law
L-4	Reversible Lanes	○	●	◐	◐	◐	◐	✓			Screen out due to low demand, no operational benefits, and additional footprint impacts
L-5	HOT Lanes on new and/or improved facilities	●						✓			Screen out due to incompatibility with state law
L-6	FAIR Lanes on new and/or improved facilities	●						✓			Screen out due to incompatibility with state law
L-7	Express Lanes	○	○	◐	●	◐	◐	✓			Screen out due to no travel time benefits, no operational benefits, and additional footprint impacts

Legend:

○

◐

◑

◒

●

Best

Good

Fair

Poor

Very Poor

From: Doug Maloy [mailto:Dmaloy@rtcwashoe.com]

Sent: Tuesday, August 14, 2012 11:33 AM

To: Abdelmoez (Del) Abdalla; Amir Soltani; Andrew Soderborg; Anita Lyday; Gant, Bryan; Carolyn Mulvihill; Honey, Charla; Young, Chris; Cindy Potter; Clara Lawson; David Dodson; Doug Maloy; Jeff Hale; Clarke, Jim O.; Jim Rundle; Jo Ann Hufnagle; Jon Ericson; Julie Masterpool; Leslie Bonneau (leslie.bonneau@ch2m.com); Mark Gallegos; Mike Fuess; McCarley, Mike S.; Neil Krutz ; Nick Johnson; Travis, Randy; Ciasto, Sara K.; Scott Gibson; Scott Nebesky; Sienna Reid; Cooke, Steve; Oxoby, Steve R.; Tom Greco

Subject: Pyramid Highway and US 395 Connector TAC Update

Dear Pyramid/US 395 Connector TAC members,

It's been a while since we've met so I wanted to update you on the status of the study. Our activities have been focused on completing the Draft Environmental Impact Statement and continuing our public outreach activities. Updates on each are provided below.

Draft EIS

Readying the Draft EIS and its supporting technical reports for public and agency review involves several review iterations. For your information and review, the attached memo outlines the methods used to conduct the environmental analysis in the Draft EIS. Feel free to ask questions or provide comments on these methods.

Status update:

- * Early March 2012-Jacobs submitted an 'Administrative' Draft EIS and technical reports to NDOT and RTC for concurrent review;
- * April/May-comments received, discussed, and addressed
- * Mid June-Jacobs submitted a revised 'Administrative' Draft EIS to NDOT and FHWA for concurrent review; comments anticipated in early August.

Next steps include:

- * Address FHWA comments and revise Administrative Draft EIS;
- * Submit revised Administrative DEIS for concurrent review to FHWA Legal Counsel and Cooperating Agencies (BLM, Bureau of Indian Affairs, and Reno-Sparks Indian Colony, Washoe County, and City of Sparks)
- * Address comments and revise Draft EIS;
- * Obtain FHWA and NDOT signature on Draft EIS
- * Distribute Draft EIS for 45-day public and agency review period, anticipated for winter 2012.

Public Outreach

Since fall of 2011, the Study Team has conducted three public meetings and participated in other outreach activities. Status update:

- * October 2011, Sun Valley Open House (Hobe's Casino)
- * November 2011, Sun Valley CAB meeting, provided project status update

- * January, 2012 Sun Valley Open House
- * June 2012 Spanish Springs Open House

Next steps include:

- * Hold public hearing during DEIS review period (winter 2012).
- * Continue stakeholder meetings and coordination as needed.

Future TAC Involvement

Future TAC meetings will occur as needed. We will reconvene the TAC after the public and agency review period for the DEIS, anticipated for winter 2012.

At this meeting, we will summarize comments received and begin working toward identification of a Preferred Alternative.

Please check the project website for updates and information:

<http://www.pyramidus395connection.com/>

As always, please call me with questions (775-335-1865) and thank you for your continued participation in this study.

Doug Maloy, P.E.

Project Manager

Regional Transportation Commission

1105 Terminal Way, Suite 108

Reno, NV 89520

Phone (775) 335-1865

Fax (775) 348-0170

e-mail: dmaloy@rtcwashoe.com

Appendix A: Agency Coordination

General

United States Department of Agriculture



Minden Soil Survey Office
1702 Country Rd. Ste. A1
Minden, Nevada 89423
(775) 782-3661
Fax: 782-2547

January 19, 2012
File code: 310-11-12

SUBJECT: Pyramid Highway/U.S. 395 Connector EIS – FPPA Evaluation

TO: Jim O. Clarke
Jacobs Engineering
707 17th Street, Suite 2300
Denver, CO 80202

The Pyramid Highway and U.S. 395 Connector EIS in Washoe County, Nevada was reviewed for potential impacts on Prime or Unique Farmland. Based on a site visit, review of soil map units affected by the undertaking, and information provided by Jacobs Engineering it was determined there are no impacts to Prime or Unique Farmland within the portion of this project reviewed by the Natural Resources Conservation Service(NRCS). No Farmland Conversion Impact Rating is required.

A handwritten signature in black ink that reads "Stephen C. Herriman". The signature is written in a cursive, flowing style.

Stephen C. Herriman
Natural Resources Conservation Service
Soil Scientist
1702 County Road, Suite A1
Minden, NV 89423
775-782-3661 ext. 109

Enclosed: Form AD-1006

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request 1/9/12			
Name Of Project Pyramid Highway and US 395 Connector EIS		Federal Agency Involved FHWA			
Proposed Land Use Transportation		County And State Washoe County, NV			
PART II (To be completed by NRCS)		Date Request Received By NRCS 1/12/12			
Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply – do not complete additional parts of this form).		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %			Amount Of Farmland As Defined in FPPA Acres: %	
Name Of Land Evaluation System Used	Name Of Local Site Assessment System	Date Land Evaluation Returned By NRCS			
PART III (To be completed by Federal Agency)		Alternative Site Rating			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly					
B. Total Acres To Be Converted Indirectly					
C. Total Acres In Site		0.0	0.0	0.0	0.0
PART IV (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland					
B. Total Acres Statewide And Local Important Farmland					
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value					
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)		0	0	0	0
PART VI (To be completed by Federal Agency) Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))		Maximum Points			
1. Area In Nonurban Use					
2. Perimeter In Nonurban Use					
3. Percent Of Site Being Farmed					
4. Protection Provided By State And Local Government					
5. Distance From Urban Builtup Area					
6. Distance To Urban Support Services					
7. Size Of Present Farm Unit Compared To Average					
8. Creation Of Nonfarmable Farmland					
9. Availability Of Farm Support Services					
10. On-Farm Investments					
11. Effects Of Conversion On Farm Support Services					
12. Compatibility With Existing Agricultural Use					
TOTAL SITE ASSESSMENT POINTS		160	0	0	0
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)		100	0	0	0
Total Site Assessment (From Part VI above or a local site assessment)		160	0	0	0
TOTAL POINTS (Total of above 2 lines)		260	0	0	0
Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Reason For Selection:					

DATE: June 27, 2013

Division of Water Resources

Project: Pyramid Hwy/US 395 Draft EIS

 X No comment on this project Proposal supported as written

AGENCY COMMENTS:

A review of the area, Hydrographic Basin #84, Warm Springs Valley, #85, Spanish Spring Valley #86, Sun Valley, #87, Truckee Meadows, #92, Lemmon Valley, and #93, Antelope Valley, all in the Truckee River Basin and indicates there are a large number of active water rights in the vicinity of the described lands in this proposed project including springs, streams, and underground rights.

Please be advised that wells and/or points of diverting water on these lands, whether new or existing, shall require prior approval from the Nevada Division of Water Resources. All waters of the State belong to the public and may be appropriated for beneficial use pursuant to the provisions of Chapters 533 and 534 of the Nevada Revised Statutes (NRS), and not otherwise, including those used for geothermal projects.

Any water or monitor wells, or boreholes that may be located on either acquired or transferred lands are the ultimate responsibility of the owner of the property at the time of the transfer and must be plugged and abandoned as required in Chapter 534 of the Nevada Administrative Code. If artesian water is encountered in any well or borehole it shall be controlled as required in NRS § 534.060(3).

Any water used on the described project for construction, dust control, or maintenance should be provided by an established utility or under permit or waiver issued by the State Engineer's Office. If artesian water is located in any well or borehole it shall be controlled as required in NRS 534.060(3).

Dewatering for alleviation of hazards caused by the rise of ground water from secondary recharge is provided by the provisions of NRS 534.025 and NRS 534.050(2).

Sincerely,

Steve Shell, Staff Engineer

SLS/dl